LOGIC

Made familiar and easy to Young Gentlemen and Ladies. To which is added,

A Compendious System

O. F

Metaphyfics, or Ontology.

Being the FIFTH VOLUME

OF THE

Circle of the Sciences, &c.

Published by the KING's Authority.

The Third EDITION Corrected.

LONDON:

Printed for NEWBERY and CARNAN, No. 65, the North Side of St. Paul's Church-yard.

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To the Right Honourable

The Marquis of TAVISTOCK,

Son of His Grace the

Duke of BEDFORD,

THIS .

ART of LOGIC

Is humby Inscribed

BY

His Lordship's

most obedient Servant,

JOHN NEWBERY.

Language Application of

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ing little Treatise, wherein the Rudiments of the Science are laid down in the plainest Manner possible, may be of some Service to the British Youth, as it will diffuse a Light over their Understanding, assist their Reasoning Powers, and lead them on to such Improvements in Knowledge as are to be expected from Years of Maturity.

A 3 Logic

Logic indeed, as formerly taught by the Schoolmen, was of little Use but to furnish the Tongue with Debate and Controverly: and therefore many People bave entertained such a Prejudice against it, as to think this useful Art not everthy of their Notice, much less of the Study and Application it requires. But, as a Modern Logician (to whose excellent Writings we own ourselves indebted) observes, " True Logic is not " that noify Thing that deals all in et Dispute and Wrangling, to which " former Ages had debased and con-" fined it; yet its Disciples must " acknowledge also, that they are " taught to vindicate and defend the Truth, as well as to fearch it out, " True Logic doth not require a long " Detail of hard Words to amuse Mankind, and to puff up the Mind with empty Sounds, and a Pride of " false

PREFACE:

false Learning; yet some Discriminations and Terms of Art are necessary to range every Idea in its proper Class, and to keep our Thoughts from Consustion. The World is now grown so wise as not to suffer this valuable Art to be engrosed by the Schools. In so positive and knowing an Age every Man

of Reason will covet some Acquaintance with Logic, since it renders its

" daily Service to Wisdom and Virtue,

and to the Affairs of common Life,

as well as to the Sciences."

To enforce this matter a little farther, let it be considered, that REASON is the Glory of Human Nature, a Gift which the wife Creator has bestow'd upon all Mankind; though all are not favour d with it by Nature in an equal Degree: But the acquired Improvements of it in different Men make a much greater A ...

Distinction between them than Nature has made. Nay, we may venture to affirm, (as the judicious Author just quoted observes) that the Improvement of this noble Faculty has "raised the Learned" and the Prudent in the European "World almost as much above the "Hottentots and other Savages of A-" frica, as those Savages are by Na-" ture superior to the Birds, the Beasts, "and the Fishes."

Now to teach us the right Use of our Reason, or Intellectual Powers, and the Improvement of them in ourselves and others, is the Business and the End of Logic: And it is by a proper Cultivation of our Reason that we are better enabled to distinguish Good from Evil, as well as Truth from Falshood; both which Things are of the greatest Concern and Importance, whether we regard our Hap-

Happiness in this Life, or our eternal

Happiness bereafter.

I believe it will not be disputed, that the Pursuit and Acquisition of Truth is of infinite Importance to Mankind. By this we become acquainted with the Nature of Things, and their various Relations to each other: By this we discover our Duty to God, and to our Fellow-Creatures: By this we arrive at the Knowledge of Natural Religion, and learn to confirm our Faith in Divine Revelation. In a Word, our Wisdom, Prudence and Piety, our present Conduct and our future Hope, are all influenced (in some Degree or other) by the Use of our rational Powers in our Enquiries after Truth.

But perhaps it may be asked, Of what Necessity is the Art of Logic? Cannot a Man form his Judgments aright, distinguish Truth from Falshood, conduct himself prudently, and arrive at a

State

PREFACE:

State of Virtue and Happiness, with out understanding all the technical Language and Formality of Rules which Logicians have invented? Yes, certainly: It must be acknowledged, that the Share of Common Sense, aubich Men enjoy as reasonable Beings, generally proves Sufficient to conduct them in the ordinary Affairs of Life; but it is a higher Advancement and a farther Affistance of our rational Powers, that is defigned by and expected from Artificial Logic: And a little Consideration will convince any one, that it requires some Skill, arising from Art and Experience, as well as a natural Strength of Understanding, to carry our Enquiries beyoud the more obvious Generalities of a Subject, to follow it through all the Intricacies and Objections that may arife, and to clear the Confiftency of it in all its Parts. So that let a Man's Strangth

Strength of Genius be ever so great, if he refuses to make use of that Assistance which is offered him in the Ways of abstruse and close Reasoning, he will infallibly find himself either totally lost,

or very much bewildered.

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By natural Sagacity a Man frequently perceives that there is something faulty or sophistical in another's Reasoning, but is incapable at the same time of discovering where the Fault lies. In such Circumflances it must be very desirable to have the Mark pointed out precisely. against which all his Force should be levelled, to have his Thoughts put into fuch a regular Train as may enable him to unravel the Difficulty, apprehend the true State of the Question, and thoroughly examine and weigh its Confequences. Every one, I believe, who makes any Pretensions to good Sense, will endeavour to form to himself a rational Method of thinking and arguing; and when

when once he has attain'd it, I dare fay he will not repent of the Trouble that it

roft bim.

We acknowledge farther, that in Discourses upon ordinary Matters we have no Occasion to be at the Pains of continually applying a common Standard, or tying ourselves up to the Strictnels of Scholastic Forms, in order to perceive the Agreement or Disagreement of Ideas, and thereby distinguish Truth from Falshood: But yet it will be found of no Small Service to learn those general Rules, which are applicable, as a Test, to all Reasoning, however varied or disguised by the Advantage of Wit or Eloquence. " SYL-" LOGISM (Says a good Writer on this " Subject) is a Measure to us in the " Management and Disposal of our " own Thoughts, and in our Rea-" fonings and Discourses to others; " where-

" wherein we cannot otherwise avoid " Confusion and Disorder, than by " confidering what the Conclusion is " we would prove, by what Medi-" ums we would prove it, and to " which Part of the Argument (Ma-" jor, Minor, or Conclusion) this or that " particular Part of our Discourse re-" lates. If our Discourse be not al-" ways laid out in the exact Forma-" lity of Syllogism, yet we should " have a Kind of Syllogistical Plan " before us; that fo in every Stage of " our Discourse we may know where-" abouts we are, and what we are " doing.

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"Syllogism moreover will be a Meafure whereby to judge of the Discourses of others, pointing out what
is the Conclusion they offer to
prove, what the Premisses are
whereby they prove it, and whe-

ther fuch Premisses do indeed prove fuch Conclusion. By reducing it to Syllogism you see all the Parts of an Argument in Miniature, what truly belongs to it, and what is put in only for Shew, and Pomp, and Amusement; and every Part in its proper Place and Order, and withal what Connection one Part has with another."

As Syllogistical Arguments, so likewise Scholastic Distinctions are in many Cases necessary to prevent Consussion, and therefore we should not entirely reject them, or take Offence at them when rightly applied. The Subtilties of Scholattic Learning have indeed of late been wery much decried, and not without Reason; but a Man of thoughtful Disposition, Leisure, and mature Judgment, will always find useful Entertainment among the Writings of the

more ingenious Schoolmen: Where, if he does not always acquiesce in their Determinations, yet be will find and acknowledge " a remarkable Sagacity in " canvassing a Question; and though " he will sometimes laugh at the " Doubles of their Distinctions, and the Mist of Words which they in-" dustriously throw over the plainest " Subjects, yet he may from thence " be apprized how to guard against " the same little Subterfuges and Arts " of Difguise, which, by Misapplication of Language, are every Day " put in Practice in Matters of Civil " Commerce and Conversation."

Having said thus much of the Usefulness of the Art of Logic, it remains (in Conformity to the Method observed in the preceding Volumes of this Work) to give some Historical Account of its Origin and Progress in the World.

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The first Philosophers were so entireby bent on the Study of Nature, as to bave little Regard to Logical Speculations. In Pythagoras's School there was no Reasoning but Authority, no Appeal from the Master's Dictates; and though we meet with good Definitions in the Writings of bis Followers, yet Logic was then unknown, and its Rules uncultivated. Zeno Eleates was the first who found out the natural Train of Principles and Consequences in a Discourse, which he formed into a regular Art; so that the Sum of his Logic was to observe the Dependence and Connection that Propositions bear to each other, and accordingly to range them in their natural Order. He made use of Dialogue, introducing two or more Persons, who by a Course of Questions and Answers reason'd methodically upon all Subjects; and bence he gave bis 2874

new-invented Art the Name of Dialectica, which Logic retain'd after the Form of Dialogue was laid afide. But Zeno, being a great Master of Subtilty, too much perplex'd and embarras'd this Method; and Protagoras, his Scholar, resin'd upon it, and carried it farther

into Sophistry.

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Euclid of Megara applied himself to the improving of the Subtilties of Logic, and introduced a more lively and webement Manner of Debate; which he carried to such an Extreme, that he was reproached as having possessed the People of Megara with a Madness of Disputing, by teaching them that sophistical Method which Socrates condemned. It was this Euclid and his Scholar Eubulides that invented those Sophisms which were afterwards so much celebrated in the Schools, though in reality they have nothing in them but their

Dilemma, &c.) together with all that Chicane of Dispute which brought Logic into Contempt at Athens, and obliged Socrates to exprse and ridicule it, in or-

der to undeceive the People.

Notwithstanding what we have faid of Zeno, Cicero makes Socrates the - Author of Logic, which he fays he fetch'd from Heaven for the Benefit of Mankind. In effect, this Philosopher made a System of all the Precepts of the Art, and demonstrated the Uje and true Practice of them in his familiar Conversation. He aurote nothing; but Plato has preferred the Logic of lis Mafter, which has nothing peculiar as to the disputative Part, of which Socrates had but a very mean Opinion. Of the Socratic Method of disputing we have given Examples in the following I reatife; but it has been objerved, that

that Socrates in his Reasoning applied himself more to Questions than Answers, hecause the Character of his Genius was fitter to raise Doubts than to resolve them.

Till we come to Aristotle, que meet with nothing fix'd and regular in Logic. It was this great Genius that first discovered the Way of arriving at Science by the Evidence of Demonstration, and of proceeding to Such Demonstration, in a geometrical Method, by the conclusive Form, the infallible Rule of Syllogism. In the Composition of Syllogisms (he observes) there must be nothing false in the Matter, nothing vicious in the Form; and the Rules he has laid down concerning them have been allowed by the Learned to be just and solid, and agreeable to the natural Course of Reason. It is true, the chief Aim and Scope of Aristotle's Logic

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Logic is not so much to teach Men the Art of true Reasoning, as to enable them to bring false Arguments to a proper Trial and Scrutiny, and to guard against the Sophisms which were then in Vogue, and which be employs his Art to detect and defeat.

The Stoics refined more upon Logic than all the other Sects of Philosophers; and frem to have armed themfelves with all its Thorns, and commenced the most formidable Wranglers of the Schools, to Support their vain and extravagant Notions. To this Purpose they invented new Modes of Syllogism, less natural than those of Aristotle, but more cunning and captious. They pretend, that Chryfippus himfelf, one of their Sect, wrote no less than three hundred Volumes upon the Art of Logic; but bis Refinements (as Seneca bas observed) only tended to break

break and enervate its masculine Spirit. Thus their Logic became slight and superficial, being little more than a Dispute about Names and their Signification; and this laid the first Foundation of that Philosophy which was revived by the Nominalists many Ages after. However, Aristotle's Works being concealed from the Public, the Logic of Zeno remained a long time chiefly in Vogue, and was one of the first that was taught at Rome; the Subtilies whereof Plautus has humorously exposed in his Comedies, and Cicero in many Places of his Works.

Epicurus's Method of Reasoning, who did not approve of the Niceties and Quibbles of the Stoics, was less artificial than that of Zeno, and carried on with greater Simplicity. He knew nothing of the analytical Method of Division and of Argumentation, which B 2 indeed

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indeed rendered him weak and little in Disputes. In Searching after Truth be proceeded only by the Senses, which be term'd the first and natural Light of Mankind, as Reflection upon the Indoment of Sense was bis second. The Simplicity of his Logic, was in a good Measure cowing to the Clearness of his Terms; be being of Opinion, (and Experience shews it to be true) that the common Source of Disputes is the Ambiguity of Propositions. Thus he refolved all Fallacies and Sophisms by the bare Explication of the Words; concluding, that if Men are not quite flupid, they must needs agree in their Sentiments, when once they understand each other's Meaning. In a Word, a Soundness and Simplicity of Sense, affifted with some natural Reflection, was all the Logic of Epicurus, who quas

was not very curious about Modes and Forms.

When the Writings of Aristotle, which had lain bid for many Ages, were once discover'd, his Method of Reasoning was generally follow'd, as the most folid and certain, and in its highest Perfection, by the Invention of Syllogism. Galen, who had formed Some different Notions of Logic, at length acquiefied in that of Aristotle, and contributed much to Spread its Reputation. Simplicius, Ammonius, and others among the Greeks; St. Auftin, Boethius, Thomas Aquinas, and many more of the Latins, (not to mention the Arabians) fludied Ariflotle's Legic as their Pattern and Original. On this Model the Schoolmen formed their Character, who (to the Shame of Reasen) reign'd with too long and too absolute a Savay; but though they fell B 4 into

into a Division of Nominalists and Realists, yet both Parties proceeded upon Aristotle's Principles in their Debates.

Laurentius Valla undertook to reform the Aristotelian Logic, by reducing the Ten Predicaments to Three, and by cut ing off the third Figure of Syllogifm; but his enterprize did not Suceced. Ludovicus Vives attempted another Sort of Reformation, (chiefly with respect to the Schoolmen) but with no better Success. And as for Peter Ramus, who laid down the Plan of a new Logic, he has rather spoiled than amended what he has borrow'd from Aristotle. Cardan composed a Logic from the Stock of his Predecessors, which has little valuable in it but Aristotle's geometrical Method.

Smiglesius, a Jesuit, is one of the last that has written on Aristotle's Logic, which he has done with a great acal

deal of Justice and Clearness: But Van Helmont in a Logical Treatise bas extrawagantly pretended to overthrow the Siftem of Aristotle, without any Ground to Support his own. Defcartes began a Logic, which he left unfinished, and which his Followers have endeavoured to illustrate and improve. M. Rapin reckons him the best Notionalist among the Moderns, whatever be delivers being well conceived, and discovering that Depth of Meditation which was his peculiar Excellence. According to the Same Critic, " of the modern Treatifes of Logic, "the most accomplished in all its " Parts is that which Peter Maunyer, " a Physician of Grenoble, has pub-" lished on the Works of Honoratus " Faber the Jesuit. What he has " written on the Art of Syllogism " and Confequence, which is his main " Bus

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" Business, is an original in its Kind: "No Man has ever carried thefe " Speculations farther, or has more exhausted the Matter, by reciting " the almost infinite Modes and Con-" nections of the Syllogistic Terms." To him therefore, and other Writers of the same Kind, we refer those who are desirous of being acquainted with such Speculations in their utmost Extent. As for our Parts, our Defign being calculated for the Instruction of Youth, and to introduce them to an Acquaintance with the Art of Logic, as it is now taught amongst us, freed from the Ob-Scurity which covered it for many Ages, we have chiefly follow'd the Steps of our learned Countryman Dr. Watts, whose Treatise on this Subject seemed best fuited to our Purpose, and which has deservedly met with universal Approbation.

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Before we conclude this Preface, we must say something concerning META-PHYSICS, or ONTOLOGY, a brief Scheme of which we thought no improper Addition to the Art of Logic. The Object of this Science is BEING in general; but the greatest Part of those who have handled the Subject seem to have confin'd it to Speculations about Substances purely Spiritual, such as the Soul of Man, Angels, and God himself; for which Reason Aristotle terms it Natural Divinity.

This Philosopher seems to have been the first Founder and Inventor of the abstracted Method of Reasoning used in Metaphysics, and the Consideration of immaterial Beings; for his Predecessors in Philosophy delivered scarce any Thing that was just and solid on these Subjects, Pythagoras indeed is said to have learnt

learnt the Unity of the Godhead from the Hebrews, when he travelled into Egypt, and to have taught it to the Greeks; but he likewife borrowed all the mysterious and visionary Notions of the Egyptians relating to Spirits and Intelligences, which they supposed were inwested with fine and Subtil Bodies. Plato took this Doctrine from Pythagoras, and Zeno afterwards transcribed it from Plato. Apuleius indeed Says, that nobody has Spoken better concerning Spirits and Divine Matters, than Plato and his followers : But Heathen Antiquity affords nothing on this Subject, composed with so much Strength of Reafon as Cicero's Books of the Nature of the Gods. The Writings of the later Platonists under the Roman Em. perors on the Subject of Metaphysics are weak and inaccurate: Nor are the Greek Fathers very exact in their Dif

Discourses on Angels and Spirits, on account of the false Nations which many of them brought out of Plato's School. However, the Being of a God, the Immortality of the Soul, the Existence of good and evil Angels, and other important Truths of Religion, have been so fully revealed, and placed in so clear a Light, under the Christian Institution, as leaves no Room to entertain a Doubt concerning them.—But we are rambling a little from what relates to our present Purpose, and it is Time to return.

Many and large Volumes have been written on the Subject of Metaphyfics; and a whole Tribe of Commentators have employed their Pens upon Aristotle's Metaphysics in particular, which were taught and admired in the Schools for many Ages, though his most zealous Defenders allow them to be the

most imperfect of all his Works. But this Science (as well as Logic) was brought into Contempt by the wast Multitude of rude and barbarous Terms, of obscure and perplexed Definitions, of dry and barren Conceptions and Reasonings, with which the Schoolmen had embarrassed it, but from which it has been rescued by modern Writers on the Subject, and therefore should not be entirely thrown aside as of no manner of Use or Signification. Our Ontology is only a short Sketch of the Science; but ave thought our Logic avould not be compleat without it, as they are nearly related and even connected with each other. To induce the Reader to the Study of Ontology, we shall give bim the Sentiments of Dr. Watts on this Head, with which we shall conclude our Pieface.

"In order (Jays he) to make due
"Enquiries into all the Particulars " which go towards the compleat and comprehensive Idea of any Being, " the Science of Ontology is exceeding necessary. This is what was " wont to be call'd the first Part of " Metaphysics in the Peripatetic Schools. " It treats of Being in its most general " Nature, and of all its Affections and " Relations. I confess the old Popists " Schoolmen have mingled a Number " of useless Subtilties with this Sci-" ence; they have exhaulted their " own Spirits, and the Spirits of their " Readers, in many laborious and " intricate Trifles, and some of their " Writings have been fruitful of " Names without Ideas, which have " done much Injury to the facred " Study of Divinity. Upon this

Account many of the Moderns " have most unjustly abandoned the " whole Science at once, and thrown " Abundance of Contempt and Rail-" lery upon the very Name of ME-" TAPHYSICS: But this Contempt " and Censure is very unreasonable; for this Science separated from " some Aristotelian Fooleries, and " scholastic Subtilties, is so necessary to a distinct Conception, solid " Judgment, and just Reasoning on " many Subjects, that sometimes it is " introduced as a Part of Logic, and " not without Reason. And those, " who utterly despise and ridicule it, " either betray their own Ignorance, " or will be supposed to make their " Wit and Banter a Refuge and Ex-" cufe for their own Laziness. Yet st thus much I would add, that the " later

" later Writers of Ontology are gene-

" rally the best on this Account, be-

" cause they have left out much of

" the ancient Jargon."

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CONTENTS.

INTRODUCTION.

OF Logic and its Parts, Page 1

PART I.

Of PERCEPTION, 3
CHAP. I. Of the Nature of Ideas in general,
CHAP. II. Of the Objects of Perception,
C 2
CHAP.

CONTENTS.

CHAP. III. Of the seweral Sorts of I-deas,

CHAP. IV. Of Words and Terms whereby our Ideas are expressed, 31

CHAP. V. Rules relating to our Conceptions of Things; with Directions for Definition, Division, and Distribution,

PART II.

Of JUDGMENT, 57

I. Of the Nature of Propositions

CHAP. I. Of the Nature of Propositions in general, and the Parts whereof they are composed, 58

CHAP. II. Of the various Kinds of Propositions, 61

CHAP. III. Of the Opposition and Conversion of Propositions, 76

CHAP. IV. Of Preju	idices, or the S	prings
of False Judgment	P.A.R.	83
CHAP. V. General ing aright,	Directions for	judg-

PART III.

PART III.
Of REASONING, 102
CHAP. I. Of the Nature of a Syllogism, and the Parts whereof it is composed,
CHAP. II. Of the various Kinds of Syllogisms,
CHAP. III. Of the several Kinds of So- phisms, and the Method of solving them,
CHAP. IV. General Rules to direct our
Realoning 147

C 3 PART

PART IV.

Of DISPOSITION, or METHOD, 152 CHAP. I. Of the several Kinds of Method, 153 CHAP. II. The Rules of Method, 158

of LOGIC.

CHAP. I. Of Academic or Scholastic Disputation, 164 CHAP. II. Of the Socratic Method of Disputation, 175

ONTOLOGY or METAPHYSICS.

CHAP. I. Of Being and Not-be	
and of the Modes or Affections of	Be-
ing in general,	189
CHAP. II. Of Essence or Nature,	193
CHAP. III. Of Existence,	198
CHAP. IV. Of Duration,	203
CHAP. V. Of Unity and Union	205
CHAP. VI. Of Act and Power,	208
CHAP. VII. Of Relative Affectio	ns or
Relations,	213
CHAP. VIII. Of Truth and Good	neis,
	216
CHAP. IX. Of the Whole and F	arts,
	221
CHAP. X. Of Causes and Effects,	225
CHAP. X. Of Causes and Effects, CHAP. XI. Of Subject and Adj	unct,
	236
CHAP. XII. Of Time and Place,	239
C 4 C	HAP.

CHAP. XIII.	Of Agreement and Dif-
ference,	243
CHAP. XIV.	Of Number and Order,
CHAP. XV.	251 Of Mental Relations, 253 Of the chief Kinds of Be-
ing,	258
Beings,	Of Finite and Infinite
CHAP. XVIII	I. Of Natural, Artificial,
and Moral	Reinas 262

LOGIC.

INTRODUCTION.

Of Logic, and its Parts.

Q. WHAT is Logic?
A. It is the Art of Thinking and Reasoning justly, or of making
a right Use of the Faculties of the Mind
in our Enquiries after Truth, and the Communication of it to others.

Q Whence is the Term derived?

A. From the Greek Word Logos, Difcourse.

Q. Into

Q. Into how many Parts is Logic di-

A. Into four, because so many Faculties or Operations of the Mind are more immediately concerned therein.

Q. Which are those?

A. It is the Art of I Make

A. Perception, Judgment, Reasoning, and Disposition; each of which shall be treated of in Order.

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PART I.

Of PERCEPTION.

Q. WHAT is PERCEPTION?

A. Perception, Conception, or Apprehension, is that Att (or rather Passion) of the Mind whereby it becomes conscious of any thing, or forms an Idea of the Objects set before it.

Q. What is treated of in this first Part of Logic, which is grounded on

Perception?

A. The first Part of Logic treats of all Sorts of Ideas.

CHAP. I.

Of the Nature of IDEAS in general.

A. A Notion, Image, or Representation of any Thing, as conceived by the Mind.—Thus, for Instance, if we think of a Horse, a Pigeon, or any other Object; the Notion or Image thereof, which is formed in the Mind, is called the Idea of a Horse, a Pigeon, &c.

Q. Whence is the Term Idea de-

rived ?

A. From the Greek Word eido, to fee; because the Mind perceives and fees, as it were, within itself the Object about which it is employed.

Q. How do we come by our Ideas?

A. The Mind gains all its Ideas either from Sensation or Reflection; that

is, either by means of the Senses, or by resteding on its own Operations, and observing what passes within itself. Thus, for Instance, by Seeing, we obtain the Ideas of Colours; by Hearing we have those of Sounds; by Tasting we get those of Bitter, Sweet, Sour, &c. And from the latter Source, i. e. from turning our Thoughts inward upon the Actions of our own Souls, arise the Ideas of Assent, Dissent, Judging, Reason, Understanding, Will, &c. But of the Origin of our Ideas we shall say more hereafter.

CHAP. II.

Of the OBJECTS of Perception.

Q. WHAT is an Object of Perception?

A. It is that which is represented in the the Idea; that which is the Archetype or Pattern, according to which the Idea is formed.

Q. Have these Objects no other

Name?

A. Yes; all Objects of our Ideas are called Themes, whether they are Entities or Non-entities, that is, Beings or Not-beings; for Non-existence may be proposed to our Minds, as well as real Existence or Being.

Q. How is Being usually consider'd?

A. Being is generally considered under the Distinction of Substance and Mode.

Q. What is a SUBSTANCE?

A. It is a Being which subsists by itfelf; that is, has an Existence of its own, a separate Existence, independent of any other created Being.

Q. What do you mean by this In-

dependence?

A. All

A, All that I mean is, that a Substance cannot be annibilated, or utterly destroyed and reduced to Nothing, by any Power inferior to that of its Creator; though its particular Form, Nature, and Properties may be altered and destroyed by many inferior Causes. Thus, for Example, Wood may be turned into Fire, Smake, and Albes; a House into Rubbish, and Water into Ice and Vapour; but the Substance or Matter of which they are made still remains, tho' the Forms and Shapes of it are very much altered. Let a Substance undergo as many Changes as you please, yet still it is a Substance; and in this Sense it depends upon God alone for its Existence.

Q. How many Kinds of Substances

are there?

A. They may all be comprehended in the general Division of spiritual and corporeal; that is, what we common-

ly understand by the Words Body and Spirit.

Q. But are Substances no otherwise

diftinguished?

A. Yes; they are distinguished into Simple and Compound, Pure and Mixed, Animate and Inanimate.

Q. What are Simple Substances?

A. Those which have no Mixture or Composition in them of different Natures. Such are either Spirits, and in this Sense God is called a Simple Being; or the Elements of natural Bodies, that is, those first Principles or Corpuscles of which all Bodies do originally consist.

Q. What is meant by Compound Sub-

A. Such as are made up of two or more fimple ones. So every Thing in the whole material Creation, that can by the Art of Man be resolved

into

into different Substances, is a Compound Body in a philosophical Sense.

Q. Are the Words Simple and Com-

pound used in any other Sense?

A. Yes; in a vulgar Sense a Needle is called a Simple Body, being made only of Steel; but a Sword or a Knife is a Compound, because its Haft or Handle is made of Materials different from the Blade.

Q. What do you mean by Pure and

Mixed Substances?

A. These Terms, when applied to Bodies, are somewhat akin to Simple and Compound. So Gold is faid to be pure, if it has no Alloy, no Mixture of other Metal in it: But if any other Mineral or Metal be mingled with it, it is called a mixed Body or Substance.

Q. What is understood by Animate

Substances?

A. Such as are endued with Life and Sense; as all Sorts of Animals,

VIZ.

Viz. Men, Beasts, Birds, Fishes, &c.— Vegetables are also reckoned amongst animated Substances, having within them a Principle of Life (as it may be called) whereby they grow, increase, and produce their Species, though void of Sensation. Such are Trees, Herbs, Plants, &c.

Q What is meant by Inanimate Sub-

A. Those which have no Life nor Sense; as, Earth, Air, Water, &c.

Q. I am fatisfied as to Substance; but what do you understand by a Mode?

A. A Mode (or Manner of Being) is that which cannot subsist in and by siself, as a Substance does, but belongs to and subsists by the Help of some Substance; which, for that Reason, is called its Subject.—In other Words, A Mode has no Existence of its own,

but depends on some Substance for its very Being.

Q. In what Manner does Mode de-

pend on Substance?

A. Not as a Being depends on its Cause, (for so Substances themselves depend on God their Creator) but a Mode must necessarily exist in some Substance, or it cannot exist at all.—
Thus Shape is a Mode of Body, and cannot subsist without it; as Knowledge is a Mode of the Mind, on which it is equally dependent: For were there no Body or Matter, there could be no Shape; and were there no Mind or Spirit, there could be no such thing as Knowledge.

Q. Can't you give one familiar Inflance, to explain the Difference be-

tween Mode and Substance?

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A. Yes; if we reflect on a round Piece of Wax, it is plain the Wax is a Thing which may subsist without D 2 that

that Roundness: Make it square, triangular, alter its Figure never so much, yet still it is Wax; and for this Reason we call it a Substance. On the contrary, the Roundness is so dependent on the Wax, that it cannot substance; for we cannot conceive of Roundness distinct and separate from a round Body. And this is what we denomitate a Mode.

Q. Are Modes called by no other Name?

A. Yes; sometimes they are called Qualities, Attributes, Properties, and Accidents.

Q. Have not Modes their feveral Di-

visions, as well as Substances?

A. Yes; they are distinguished into various Kinds, as Esential and Accidental, Absolute and Relative, Intrinsic and Extrinsic, and several others.

Q. What

Q. What is an Effential Mode?

A. That which belongs to the very Nature or Essence of its Subject; as Solidity in Matter, Thinking in a Spirit, &c.—Of effential Modes some are called primary, as Roundness in a Globe; others secondary, as Volubility or Aptness to roll, which is consequent upon the former. The first is called the Difference, being the distinguishing Attribute of a Globe; and the latter is termed a Property.

Q. What is an Accidental Mode?

A. That which is not necessary to the Being of a Thing, but may be wanting, and yet the Nature of the Subject remain the same; as Smoothness or Roughness, Blackness or Whiteness, Motion or Rest, in a Globe or Bowl; for these may be all changed, and yet the Body remain a Globe still. Such Modes as these (and no others) are properly called Accidents of Bodies.

D 3 Q. What

Q. What is meant by Absolute and Relative Modes?

A. An absolute Mode is that which belongs to its Subject, without respect to any other Being whatfoever: But a relative Mode arises from the Comparison of one Body with another. Thus Motion is an absolute Mode of a Body; for I can confider a Body as in Motion, without comparing it to any thing else in the whole Creation: But Swiftness and Slowness are relative Modes, the Ideas whereof are produced by comparing the Motion of one Body with that of others; as the Motion of a Bowl on a Bowling-Green is fwift, when compared with a Snail; and it is flow, when compared with a Cannon-Ball .- So also Size is an absolute Mode of a Body, but Greatness and Smallness are relative Ideas. Q. What is an Intrinsic Mode?

A. Such as we conceive to be in the Subject or Substance itself; as when we say, a Globe is round, in Motion or at Rest; or when we call a Man tall, or learned.

Q. What is an Extrinsic Mode?

A That which is not in the Subject itself, but derived from something external or foreign to it; as when we say a Thing is desired, loved, bated, &c. So if I say, That Post stands within a Yard of the Wall, I express a Mode or Manner of Being which is not in the Post itself, but which it derives from its Situation with respect to the Wall.

Q. Which are the other Divisions of

Modes?

A. The Division of Modes into Inberent or Adherent, Proper or Improper, is so much akin to the last, that it does not deserve to be explained by Examples.

D 4 Q. Are

Q. Are there any others that are

worth taking Notice of?

A. Yes; it is proper to observe, that Action and Passion are reckoned among the Modes of Being. By Passion is here meant suffering or bearing Action; and what suffers is called the Patient, as that which acts is termed the Agent.—Thus, when a Smith with a Hammer strikes a Piece of Iron, the Hammer and Smith are both Agents; and the Iron is the Patient, because it suffers or receives the Blows of the Hammer, as directed by the Hand of the Workman.

Q. Have you any more to add?

A. Yes; Modes are farther divided into Natural and Supernatural, Civil and Moral.——If I say, The Apostle Paul was a Man of low Stature, but he was inspired; here his Lowness of Stature is a natural Mode, and his being

being inspired is supernatural.—Thus again, if I say that such a one is an honest Man and a free Citizen; here are two Modes, the one arising from his Honesty, which is a moral Consideration; the other from his being free of a City, which is a civil Privilege.

Q. Is this all you have to fay con-

cerning Modes?

A. No; I would have you observe, that though the greatest Part of Modes belong to Substances, yet there are some which are only Modes of other Modes: For though they subsist in and by a Substance as the original Subject of them, they are properly and directly attributed to some Mode of that Substance. Thus Motion is the Mode of a Body, but Swiftness and Slowness are Modes of Motion: And if I say a Man walks gracefully, it is plain that Motion

Motion is his Mode at that Time; but Walking is a particular Mode or Manner of Motion, and gracefully is still a far-

ther Mode of Walking.

Q. You have given me a large Account of Being or Substance, and its various Kinds of Modes; but how do you explain the Nature of Not-being, or Non-entity?

A. Not being will fall under a twofold Consideration, as it relates either

to Mode or Subflance.

Q. How is it to be confidered with

respect to Substance?

A. We may consider Non-entity as excluding all Subflance, and consequently all Modes; and this is called pure Nihility or Nothing.

Q. How is it confidered with rela-

tion to Modes?

A. When there is a Non-entity of Modes only, it is considered either as a mere Negation, or as a Privation.

Q. What

Q. What is meant by these Terms?
A. By Negation we mean the Absence of that which does not naturally belong to the Subject; as the Want of Sight in a Stone, or of Learning in a Fisherman: But the Want of Sight in a Man, to whom it naturally belongs, or of Learning in a Physician or a Divine, who ought not to be without it, is called a Privation. So the Sinfulness of any human Action is said to be a Privation, as it consists in a Want of Conformity to the Law of God.

CHAP. III.

Of the Several Sorts of IDEAS.

Q. HOW many Kinds of Ideas are

A. Ideas may be confidered according to their Original, their Nature, their

their Objects, and their Qualities: And this fourfold Division will easily comprise them all.

Q. How are we to consider them

with respect to their ORIGINAL?

A. It has been the Subject of a great Controversy, Whether any of our Ideas be innate or no, that is, born with us, and naturally belonging to our Minds. This is positively afferted by some, but utterly denied by Mr. Locke, who (in my Opinion) has sufficiently shewn, that all our Ideas are derived from Sensation and Resection; of which I have said something already.——But, without entering into this Debate, I think our Ideas, with regard to their Original, may be divided into three Sorts, viz. Sensible, Spiritual, and Abstracted.

Q. What do you mean by Senfible

Ideas ?

A. By fensible or corporeal Ideas I mean those which are derived originally from our Senses: Such are the Ideas of Colours, Sounds, Tastes, Shapes, Motions, &c.

Q. What do you understand by Spi-

ritual Ideas?

A. The Word spiritual is here used in a natural, not in a religious Sense, and signifies the same as mental or intellectual. These Ideas we gain by reflecting on the Nature and Actions of our own Souls, by meditating, contemplating, and observing what passes within ourselves. Such are the Ideas of Thought, Knowledge, Judgment, Reason, Love, Fear, Hope, &c.

Q What are Abstracted Ideas?

A. These are framed by that Operation of the Mind which we usually call Abstraction, whereby we separate some Parts of an Idea from other Parts of it, or consider a Thing simply in it.

felf, without respect to the Subject wherein it refides. - Thus, if we confider Magnitude or Humanity in themselves, or without being attached to any particular Body or Person, these are called abstracted Ideas. Whiteness is an abfiracted Idea, when confidered in general, and not as residing in Chalk, Snow, Mick, or any particular Subject whatfoever. Of the same Nature are our Ideas of Caufe, Effect, Likeness, Unlikeness, Identity, Contrariety, and innumerable others. Some indeed have contested the Reality of any fuch Ideas as those we are speaking of; but to me the Diflinction feems to be fufficiently warranted: However, I am apt to think, that upon a strict Examination even our most abstratted Ideas will be found to owe their Original to Sensation or Reflettion.

Q. How are Ideas distinguished with regard to their NATURE?

A. Into Simple and Complex, Com-

pound and Colletive.

Q. What is a Simple Idea?

A. It is one uniform Idea, which the Mind cannot distinguish into two or more; such as the Idea of Cold, Heat, Red, Blue, Bitter, Sweet, Motion, Rest, Thought, Will, &c. for in these, and others of the like Nature, our most subtil Penetration cannot discover any Parts or Plurality.

Q. What is a Complex Idea?

A One that is framed by joining two or more simple Ideas together; as those of a Square, a Triangle, a Man, a Horse, a Tree, &c. which, though often considered as single and distinct Things, yet, as they are evidently composed of several Parts, may be divided by the Mind into several Ideas.

Q. What

Q. What is a Compound Idea?

A. That which contains several I-deas of a different Kind, whether simple or complex. Such is the Idea of Man, as compounded of Body and Spirit; of an Electuary, or other Medicine, compounded of different Ingredients; and of Harmony, which is made up of different Sounds united.

Q. What is a Collective Idea?

A. That which joins together many Ideas of the jame Kind, and confiders them in one View. Such is the Idea of an Army which is a Collection of Men; of a Town, which is a Collection of Houses; of a Nosegay, which is a Collection of Flowers; of a Grove, which is a Collection of Trees, &c. But this Distinction between compound and collective Ideas is not accurately observed, the former Epithet being frequently used instead of the latter.

Q How

Q. How are Ideas distinguished according to their OBJECTS?

A. Into Particular and Universal,

Real and Imaginary.

Q. What is a Particular Idea?

A. That which represents one Object only; and this either indeterminately, as when we say some Man, any Man, one Woman, another Woman, some Horse, another City, &c. or else in a determinate Manner, as William the Conqueror, this Field, that River, the City of London, &c. These Ideas, representing one particular determinate Thing, are also called Singular Ideas, whether they be simple, complex, or compound: And the Object of a particular Idea, as well as the Idea itself, is sometimes termed an Individual.

Q. What is an Universal Idea?

A. That which represents a common Nature agreeing to many particular Things.

Things. Thus a Man, a Tree, a Horse, are called universal Ideas, because they agree with all Men, Trees, and Horses.

Q. Are not universal Ideas distin-

guished into two Sorts?

A. Yes; into General and Special. -A general Idea, or Genus, is one common Nature which includes several others. Thus Animal is a Genus, because it includes Man, Horse, Elephant, Fly, &c. which are also common Natures: And Bird is a Genus, as comprehending Eagle, Crow, Sparrow, Lark, &c .- A Special Idea, or Species, is one common Nature agreeing to feveral Individuals. Thus Man is a Species, as agreeing to William, Peter, John, &c. and City is a Species, as agreeing to London, Paris, Constantinople, &c .- Hence it is easy to obferve, that the same Idea may be Sometimes a Genus, and sometimes a SpeSpecies; for Bird is a Genus if compared with Eagle, Crow, &c. but a Species with respect to Animal; and Animal is a Species with respect to Subflance.

Q. What is meant by Real Ideas?

A. They are such as have real Objects, which either do or may exist, according to the present State and Nature of Things; of which it is needless to give any Examples.

Q. What is meant by Imaginary

Ideas ?

A. They are Ideas of Objects which never did nor ever will exist, according to the present Course of Nature. Such are those of a Flying Horse, a Satyr, a Bee as big as an Elephant, &c. These Ideas are also called fantastical or chimerical.

Q. How are Ideas distinguished with respect to their QUALITIES?

E 2 A. Into

A. Into Clear or Dislinet, and Obfeure or Confused; into Vulgar and Learned; into Perfect and Impersect; and into True and False.

Q. What is a Clear or Distinct Idea'?
A. That which fully represents the Object to the Mind, so as plainly to distinguish it from every other Object.

Q. What is an Obscure or Confused Idea?

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A. That which represents the Object either faintly, or so consounded and mingled with others, that it does not appear plain and distinct to the Mind. Thus when we view the Rainbow, we have a clear and distinct Idea of the Red, the Blue, and the Green, in the Middle of their several Arches; but the Borders of these Colours so run into one anotoer, that the Eye cannot well distinguish them, and therefore

therefore their Ideas are obscure and confused.

Q. What is meant by Vulgar and

Learned Ideas?

A. Vulgar Ideas represent Objects according to their most obvious and sensible Appearances: But Learned Ideas are framed by considering the Nature, Properties, Causes, and Essects of Things. Thus it is a vulgar Idea when we conceive the Rainbow to be a large Arch in the Clouds, made up of several Colours; but when a Philosopher considers it as caused by the various Research and Restractions of the Sun-beams in Drops of falling Rain, this is a learned Idea.

Q. What is the Meaning of Perfect

and Imperfect Ideas?

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A. Perfect or Adequate Ideas are fuch as represent the Whole of the Objects to which they are referred. Thus all our simple Ideas, such as

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Sweet,

be called perfect, because they are without Parts: And several of our complex Ideas are also perfect, as those of a Square or Triangle, all the Parts whereof are evident, and the Mind comprehends them compleatly. Imperfect or Inadequate Ideas are but a partial or incomplete Representation of their Objects. Thus we have only an imperfect Idea of a Figure of a thousand Sides, of the Powers of the Loadstone, or of Infinity, which is ever growing, and can never be compleated.

Q. What is meant by True and

Falfe Ideas ?

A. Ideas are true when they are conformable to the Objects, and represent them as they really are; otherwise they are false: As when every Thing appears yellow to a Man in the

the Jaundice, or a firaight Stick feems

CHAP. IV.

Of WORDS and TERMS, whereby our Ideas are expressed.

quire our Ideas, and have enumerated their various Kinds; but how do we convey them to each other?

A. By means of certain Sounds, or written Marks, which we call Words; that is, by the Use of Speech or Language. But as Words are the Medium whereby we mutually receive and communicate our Knowledge, so they are often the Sources of Mistake and Error.

Q. How do Words lead us into Mi-

E 4 A. Our

A. Our Mistakes are chiefly owing to the following Causes. 1. Because there is no natural Connexion or Relation between Words and the Ideas they are designed to express. 2. Because different simple Ideas are often expressed by the same Words; as the Word Sweet (for Instance) is applied to the Objects of Tasting, Smelling and Hearing. 3. Because very complex Ideas are frequently expressed by fingle Words, which can never diffinctly manifest all their Parts. And hence it happens, that one Man includes more or less in his Idea than another does, while he affixes the same Word to it; which occasions Debates and Confusion. 4. Because many Words are used in a Sense entirely different from what they had in the Language whence they are derived; as the Word Spirit originally fignified Air, or Breath, which has now quite another other Signification. 5. Because several Things are often denoted by one and the same Name; as Shore signifies the Sea Coast, or a Prop to support a Building. From these Considerations it appears, that to prevent our being led into Error whilst we are pursuing after Truth, it is necessary to guard well the Use and Meaning of Words and Terms, and to be acquainted with their various Kinds.

Q. Into how many Kinds are Words and Terms divided?

A. Logicians divide them into Pofitive and Negative, Simple and Complex, Common and Proper, Abstract and Concrete, Univocal and Equivocal.

Q. Which are Postive and which

Negative Terms?

A. Positive Terms have an affirmative Sense, and signify some positive Idea; as Art, Prudence, Regutar, Finite, Pleasant, &c. Negative Terms

are quite the Reverse of the positive ones, having a denying Syllable or Particle joined to them, either at the Beginning or End of the Word; as Artlefs, Imprudence, Irregular, Infinite, Unpleafant, &c. But fuch is the Imperfection of Language, that some positive Terms are made to fignify negative Ideas, and some negative Terms imply positive Ideas; so that we cannot certainly know whether an Idea is posttive or negative by the Word that is used to express it. ____N. B. In our Language two negative Terms are equal to one positive; as not immortal fignifies mortal.

Q. What is meant by Simple and

Complex Terms?

A. A fimple Term is one Word; a complex Term is when more Words are used to fignify one Thing. Thus, the Founder of Rome is a complex Term, but the Words excite the Idea of one Man

Man only, viz. Romulus. On the other hand, some Terms are complex in Sense, but not in Words; as a Family, an Army, a Forest: And so Religion, Charity, Knawery, Loyalty, and many more, are simple Terms, but include a Variety of Ideas. Other Terms are complex both in Words and Sense; as a sharp Knife, a sweet Apple, &c. which excite an Idea not only of the Things themselves, but also of their Qualities.

Q. What is the Meaning of Common

and Proper Words?

A. Common Words or Names (which are also called Appellatives) are such as stand for universal Ideas, or a whole Rank of Beings, whether general or special. Thus Man, Bird, Fish, City, River, Mountain, are common Names; and so are Sparrow, Raven, Salmon, Lobster; for they all agree to many Individuals, and some of them to many

many Species: But Virgil, London, the Thames, Vesuvius, are proper Names, because they belong to one particular Man, City, River, and Mountain .-Here we may observe, that a proper Name may in some Sense become common; as Casar was the proper Name of Julius the first Roman Emperor, and became the common Name of the succeeding Emperors. So also a common Name is sometimes used as a proper one; as when we say the King, meaning King George. And indeed any common Name is made proper, by the Addition of some Term of a particular and determinate Meaning; as this House, that Garden, the present Emperor, &c.

Q. What is meant by Abstract and

Concrete Terms.

A. Abstract Terms are those which express some Mode or Quality, considered

dered separately, and without any Reagard to its Subject; as Wisdom, Piety, Hardness, Whiteness, Happiness.—Concrete Terms are those which signify some Quality, and at the same Time express or imply some Subject to which it belongs; as wise, pious, hard, white, happy: But they are not always what Grammarians call Adjectives; for Slave, Hypocrite, Philosopher, and many other Concretes are Substantives, as well as Slavery, Hypocrisy, and Philosophy, which are abstract Terms that belong to them.

Q. What is meant by Univotal and

Equivocal Terms?

A. Univocal Terms are such as signify but one Idea, or at least but one Sort of Thing; as Book, Fish, House, Gold, Silver, and all other Words, the bare Mention whereof excites a certain fixed Idea, so that we have not the least Doubt about their Mean-

ing,

ing. - Equivocal Terms are those which fignify two or more different Ideas, or different Sorts of Objects. Thus Foot is an equivocal Word, as fignifying the Foot of an Animal, or a Measure of twelve Inches : Post is equivocal, being used for a Piece of Timber, or a Messenger who carries Letters. So Grace, Church, Bitter, Sweet, Sharp, and a Multitude of others, are equivocal or ambiguous, as fignifying several different Things; and the Use of such Words, with a Defign to puzzle or deceive, is called Equivocation. These ambiguous Terms, which have feveral Meanings, are also called Homonymous; as different Words fignifying the same Thing, are called Synonymous.

Q. Are there not various Kinds of

equivocal Words?

A. Yes, so many that it would be tedious to enumerate them all; but some fome of the most remarkable and use ful Distinctions among them are those which follow. 1. Some Words are equivocal in Sound, but not in Writing; as the Rein of a Bridle, the Reign of a King, and Rain that falls from the Clouds: Others in Writing, but not in Sound; as Boaul a Ball, and Bowl a Vessel, are written the same Way, but pronounced differently: Others, which are most properly called equiwocal, are those that are written and pronounced alike, but have different Senses; as Post and Foot abovementioned. 2. Words are equivocal in respect to the Extent of their Meaning, which are sometimes taken in a large and general Sense, and sometimes in a Sense more particular and restrain'd. Thus, strictly speaking, Holland is but one of the United Provinces; though in a large Sense it includes all the Seven. 3. Words are equivocal by bebeing sometimes used in a literal, and sometimes in a figurative Sense; as when Man is said to repent or be angry, it is understood literally; but when spoken of God, the Expressions are figurative. 4. Some are equivocal on account of a common and scientific Meaning; as Passion vulgarly signifies Anger, but philosophically the receiving any Assion impressed.—These are the principal Kinds of equivocal or ambiguous Words.

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CHAP. V.

Rules relating to our Conceptions of Things; swith Directions for DEFI-NITION, DIVISON, and DISTRI-BUTION.

BY what Rules are we to guide and regulates our Conceptions?

A. 1. Conceive of Things clearly and distinctly, as they are in their own Natures. 2. Conceive of them compleatly, in all their Parts. 3. Conceive of them comprehensively, with regard to their Properties and Relations. 4. Conceive of Things extensively, in all their Kinds. 5. Conceive of Things orderly, or in a proper Method.

Q. What is necessary to be observed with respect to the FIRST Rule?

F A. In

A. In all Discourse or Argument proper Definitions are necessary, that every Thing may be clearly and diffinally understood.

Q. What is meant by DEFINITION?

A. Definition is of two Kinds; one of Names or Words, the other of Things.

Q What is the Definition of a

NAME?

A. It is the explaining and determining precifely in what Sense we use a Word, or what Object we mean by it; which may be done in any Manner, so as to convey our Meaning sufficiently to another Person.

Q. What Directions are proper to be observed in the Definition of

Names ?

A. Principally the following. 1.
Avoid making use of mere Words, which bave no Ideas belonging to them, or no settled

fettled and determinate Meaning. For what fignifies talking of Fate, Fortune, Perfection, Inflinet, &c. without we have some certain Idea first affixed to these Words? Do not Suppose the Nature of Things to be always as different as their Names. For the Words Herb, Sallad, Weed, though they are different Names, are not really three different Species of Beings. 5. Do not think the Nature of two Things the same because they have the same Name. Thus Heat which we feel by being near the Fire, and the Cause of that Sensation in the Fire itself, are very different, though the same Name is applied to both. 4. Use no ambiguous Words in your Definitions; for this may make your Candour and Ingenuity Suspected. 5. Define your Words in the same Sense in which Mankind use them, as near as possible; and in your Discourse keep close to your first Definitions, ur.lessunless you give proper Notice of the Change.

Q. What is the Definition of a

THING?

A. An Explanation of its Nature, including something which is common to it with other Things, and something that is peculiar to the Thing defined. Thus, if I would give a Definition of Wine, I say it is Juice preffed from Grapes.

Q How is a Definition of any Thing

to be formed?

A. By considering what is the nearest Genus or general Nature of the Thing to be defined, and then what is its primary Attribute or Property wherein it differs from all other Things that are most like it. Thus, in forming the above Definition, tho' Wine is a Substance, I do not make use of that Term, because it is a very remote Genus; nor do I call it a Liquid, because that is

still too remote; but I fay it is a Juice, because that is its nearest general Nature, tho' common to it with many other Things. Having gone thus far, I am to consider what is its primary Attribute wherein its Specific Difference consists: that is, wherein it differs from all other Juices. Now if I should fay, it is the Juice of a Fruit, this Difference would be too general, for it would not distinguish it from Cyder, Perry, &c. which are Juices of Fruits also: But when I say, it is a Juice pressed from Grapes, this expresses its Special Nature, which distinguishes it from all others. Therefore the general and special Nature joined together, or (as Logicians call them) the Genus and the Difference, make up a Definition.

Q Which are the chief Rules of a good Definition?

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A. 1.

A. I. That it be adequate or univerfal; that is, it must agree to all the particular Species included under the Idea of the Thing defined. Thus, the Juice of the Grape agrees to all Wines, (properly fo called) whether Red, White, Spanish, French, &c. 2. It must be peculiar to the Thing defined, and agree to that alone. So the Juice of the Grape agrees to no other Being but Wine. 3. It ought to be clear and plain, and consequently free from all ambiguous Words. 4. It should be fort, but not so as to leave it obscure; and indeed the Differeace of Things cannot always be expreffed in a tew Words, as confishing of feveral Attributes or Ideas. 5. A Definition of a Thing must not be expressed in mere synonymous Words; for that would not explain its Nature, and be no better than a Definition of the Name.

Q Is

Q. Is every Thing capable of be-

ing exactly defined?

A. No; it is very difficult to define some Things accurately, and others cannot be defined at all. Where the Effences of Things approach near to each other, fo that their Limits cannot well be adjusted, it is difficult to define them; because we cannot tell under what Species to rank them, or how to determine their Specific Difference. It is hard (for instance) to define a Batt, which is between a Bird and a Beaft; or a Barge, which is between a Boat and a Ship. - Being and Not-Being, having no superior Genus, can never be defined; neither can Individuals, because either they have no effential Differences from other Individuals, or their Differences are not known to us; and therefore we can only describe them by their particular Circumstances. Lastly, We know

know so little of the Essence of the various Kinds of natural Beings or Subflances, that our Definitions of them are only an Enumeration of their chief Parts or Properties, which best explain and diffinguish them from other Things according to our Observation. Thus we should define Silver to be a white hard Metal, the finest and most ductible next to Gold, &c. A Primroje is a yellowish Flower confishing of Several Small Leaves of such a particular Shape, &c. But this Sort of Definition is called imperfect, or a Description; the perfect Definition being composed of the specific Difference added to the general Nature or Genus, as above observed.

Q. How do you explain your SE-COND Rule, relating to a compleat Con-

ception of Things?

A. To conceive of Things compleatby, we must take them as it were to pieces, pieces, and confider all their Parts feperately. This Rule therefore only refers to complex Ideas, for simple Ideas have no Parts. Now all Parts imply fome Whole to which they belong; and our whole Ideas may be diffinguished into two Kinds. 1. There is a Mathematical or Integral Whole, which is when all the Parts are diftinct from each other, and may subfift apart. So the Head, Limbs, and Trunk are the integral Parts of a human Body: Units are the integral Parts of large Numbers: And the Spring, Wheels, Ralance, Dial-Plate, &c. are the integral Parts of a Watch. An Enumeration of these Parts of an Idea is what Logicians call Division; and when any of the Parts are still farther divided, it is called a Subdivision. 2. There is a Logical or Universal Whole, the Parts whereof are all the particular Ideas to which the

the universal Nature extends. So 2 Genus is a Whole, as Animal; and the several Species are its Parts, as Man, Beast, Bird, &c. A Species is likewise a Whole, as Horse; and the Individuals, as Trot, Ball, Dobbin, &c. are the Parts. A proper Enumeration of these Parts of an Idea is called Distribution.

Q. Which are the Rules relating to

Division?

A. 1. Each Part taken separately must be less than the Whole, but all torgether must be exactly equal to it. To divide a Tree therefore into the Trunk and the Leaves would be an impersed Division, since the Whole is not compleat without the Rose and the Branches.

2. In all Divisions begin with the larger and more immediate Parts of the Subject, and so proceed to the more minute and remote Parts. For it would be very improper to divide a Kingdom first

first into Streets and Fields; but we must first begin with Provinces or Counties, and then those Counties may be divided into Towns, Fields, &c. and Towns into Streets and Lanes. 3. The Parts of a Division should be oppofite, so as not to contain one another. It would therefore be improper to divide an Animal into Body, Head, Limbs, and Bones, because Bones are included in all the other Parts. 4. We ought not to run into many Subdivisions without Necessity. 5. We should divide our Subject according to the Design we have in View. So a Printer divides a Book into Sheets and Pages; but a Logician considers it as divided into Chapters, Sections, Propositions, &c. 6. In all Divisions the Nature of Things should be carefully observed. Thus Nature plainly leads us to divide a Tree into the Root, the Trunk, and the Branches; but it would be unnatural to divide itinto

into the upper Half and the lower Half, fince it would be hard to determine how much belonged to the one, and how much to the other.

Q. Which are the Rules relating to

Distribution?

A. The are much the fame with those applied to Division: For, 1. The Parts of a Distribution taken together must contain the Whole. So Mankind are justly distributed into Male and Female. 2. In Distributions we must begin with the larger and more immediate Species or Ranks of Beings, and not with those which are more minute and remote. Thus Animal would be improperly divided into Sparrow, Dove, Trout, Flounder, Horse, Bear, &c. whereas it should first be distributed into Man, Beaft, Bird, Fifb, Infect; and then Beaft into Horse, Bear, &c. Bird into Eagle, Sparrow, &c. Fish into into Trout, Flounder, &c. and Infect into Wasp, Butterfly, Caterpillar, &c. 3. The Parts of a Distribution should not contain or include one another. Thus Men may properly enough be distributed into Young, Old and Middle-aged; but not into Rich, Poor, and Learned, because rich Men may be learned, and so may the Poor. 4. Subdivisions should not be numerous without Necessity. 5. Each Subject should be distributed according to the special Design we have in View. Thus, in treating of Politics, Mankind may be distributed into the Rulers and the Ruled; but, with respect to Religion, they are distinguished into Heathens, Mahometans, Jews, and Chriftians. 6. We should carefully follow Nature in all our Distributions.

Q. What is the Meaning of your THIRD Rule, relating to a comprehen-

five Conception of Things?

A. As

A. As we obtain a compleat Conception of an Object by surveying it in all its Parts, so we obtain a comprehensive Conception of it by considering it in all its Modes, Attributes, Properties, and Relations. Indeed, it is neither necessary nor possible to run through all the Modes, Circumstances, and Relations of every Subject we take in hand; but a judicious Speaker or Writer will chuse those which are most necessary to his Design, either to explain, illustrate, or prove his Point.

Q. How are we to understand the FOURTH Rule, which directs us to

conceive of Things extensively?

A. To have an extensive Conception of a Thing is to consider the various Sorts or Kinds of Beings to which the same Idea belongs, i. e. to search out the several Species or special Natures, that are contained under a Genus or General Nature. Thus, if we conceive

ceive extensively of an Animal, we confider Beasts, Birds, Fishes, and Insects, as well as Men, which are all included in that general Name. Such a Conception of Things enable us to make a proper Distribution of an Universal Whole into its various Species and Individuals, the Rules for which have been just now given.

Q. What is the Intention of the FIFTH Rule, to conceive of Things

orderly?

A. This Rule is intended to prevent Confusion, either in the Mind of the Teacher or the Learner; for which Purpose our Ideas ought to be disposed in a just and proper Method, that may affish both the Understanding and the Memory: As Books in a well ordered Library are disposed according to their Sizes and Subjects, so that any one of them is readily found by the Student. We might here

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here lay down Rules relating to Method, but that would be anticipating what belongs to the Fourth Part of Logic, wherein we shall speak of it more largely.

PART II.

Of JUDGMENT.

Q. WHAT is meant by Judg-

A. Judgment is that Operation of the Mind, whereby we compare two or more Ideas together, and either affirm or deny something concerning them, according as we find they agree or disagree with each other.

Q Cannot the Mind then form a Judgment, without fomething be affirmed or denied in Words?

A. Yes, the Mind may perceive the Agreement or Disagreement of 1deas; and accordingly assent or dissent within itself, though no Words are used. used. And this is properly called Judgment; for when any Judgment is expressed in Words, it is called a Proposition. In short, as Idea, are the Result of Conception or Apprehension, so Propositions are the Effects of Judgment.

CHAP. I.

Of the Nature of PROPOSITIONS is general, and the Parts subereof they are composed.

A. It is a Sentence wherein two or more Ideas or Terms are joined
or disjoined by one Affirmation or Negation; that is, wherein fomething is affirmed or denied: As, Men are mortal;
Powerty is no Vice: Complete Happiness
is not attainable on Earth.

Q. What are the Parts which con-

A. The Subject, the Predicate, and

the Copula.

Q. What is the Subject of a Propofition?

A. It is that of which any Thing is affirmed or denied. So Men, Powerty, compleat Happiness, are the Subjects of the foregoing Propositions.

Q. What is the Predicate?

A. It is that which is affirmed or denied of the Subject. So mortal, Vice. attainable on Earth, are Predicates in the above Examples.

Q. What is the Copula of a Propo-

fition?

A. It is the Word or Words whereby the Affirmation or Negation is expressed, and the Subject and Predicate are connected. These are am, art, is, are, can, may, &c. or am not, art not, is not, are not, and many others of the G 2 like like Nature. N. B. The Subject and Predicate are called the Matter, and the Copula is called the Form of a Proposition.

Q Are all these Parts distinctly ex-

pressed in every Proposition?

A. No, but they are all implicitly contained in it. Thus, I write is a compleat Proposition, though the Copula seems to be wanting; for it is the same as I am writing. So in the Proposition Rome is, the Word is includes both the Copula and Predicate; being the same as Rome is in Being.—And here it may be proper to observe, that the several Parts of a proposition are not always to be known by the Order in which the Words are placed, but by duly considering the Sense of them, and the Design of the Writer or Speaker.

CHAP. II.

Of the various Kinds of PROPOSI-

Q. INTO how many Kinds are Propositions usually distinguished?

A. They are distributed into various Kinds, according to their Subject, Copula, and Predicate; or with respect to their Nature, Sense, and Evidence.

Q. How are they diffinguished in

regard of their SUBJECT?

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A. Into four Kinds, viz. 1. Uniwersal, when the Subject is taken in its whole Extent; which Universality is commonly expressed by the Words all. every, no, none, and the like; as, All Creatures bad a Beginning: No Man is free from Failings. 2. Particular, when the Subject is not taken in its whole Extent, but is limited by a Word denoting Particularity, as Some, many, few, &c. as when we say, Some Men are blind: Many Opinions, are erroneous. 3. Singular, which is when a Proposition only relates to one individual Person or Thing; as Solomon was a wife Man: This Day is very fine, But this Sort of Propositions may justly be included under the general Name of Universals, because the Subject is taken in its full Extent; for being an individual, it can extend to that only. 4. Indefinite, which is when a Subject has no Note either of Universality or Particularity prefixed to it, but yet is general in its Nature; as, Angels are immortal: Stones have no Sensation. But these indefinite Propofitions (especially when they describe the Nature of Things) are also to be reckoned Universals.

Q. How are Propositions distinguished with respect to their COPULA?

A. Into Affirmative and Negative. In affirmative Propositions something is politively afferted of the Subject. and is joined to it by the Words is, are, &c. as, God is a Spirit. In negative Propositions something is denied of the Subject, and is therefore difjoined from it by the Particles is not, are not, &c. as, Man is not a Stone. Here it is natural to observe, that the Sense of many Propositions may be plain and easy, though it may be difficult to fay whether they should be ranked under the Names of negative or affirmative; nor is it worth while to wrangle about Matters of fo little Importance. The Distinction indeed is allowable and useful; but it seems to me, that all Propositions may in some Sense be called affirmative; for all affirm that fomething is, or is not; or, in other Words, they affirm the Agreement or Disagreement of Ideas.

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Let the Scholar likewise take Notice, that in our Language two Negtives in one Sentence make an Assimative; for if we say, No man is not mortal, it is the same as if we said, Every Man is mortal. But in Greek, and very often in French, two Negatives only deny more strongly. In English they are highly improper.

Q. How are Propositions distinguished with respect to their PREDICATE?

A. Into Pure and Modal. A pure Proposition merely and simply expresses that the Predicate is connected with the Subject; as, A Globe is round. A modal Proposition shews also the Way and Manner wherein the Predicate and the Subject are connected. These Modes of Connexion are usually reckoned four, viz. 1. Necessity; as, It is recessary that a Globe should be round. 2. Contingency; as, A Globe may be made of Brass or Wood, for this

is an indifferent or contingent Thing, 3. Possibility; as, It is possible a Globe may be made of Water. 4. Impossibility; as, It is impossible that a Globe should be square.

Q. Are there no other Modes of connecting the Predicate with the Sub-

ject ?

A. Yes, many more; for to those above-mentioned, which are only natural, might be added moral and civil Modes, such as Lawfulness and Unlawfulness, Conveniency and Inconveniency, &c. So also, it is probable, it is improbable, it is certain, it is doubtful, it is said, it is written; and various other Modes of speaking, whereby a Predicate and a Subject are connected, will form other Kinds of modal Propositions.

Q. How are Propositions distributed

with regard to their NATURE?

A. Into Single and Compound?

Q. What

Q. What is a Single Proposition?

A. That which has but one Subject, and one Predicate. If these consist only of simple Terms, the Proposition is called simple; as, Sinners are miserable: Virtue is desirable. But if the Subject or Predicate are made up of complex Terms, the Proposition is also called complex; as, Impenitent Sinners are miserable: Virtue is desirable more than Gold.

Q. What is a Compound Proposition?

A. That which has two or more Subjects or Predicates, or both, and therefore contains two or more Propositions, either plainly expressed or implied.—The first Sort of compound Propositions, i. e. wherein the Composition is expressed and evident, are distinguished into Copulative, Disjunctive, Conditional, Causal, Relative, and Discretive; of which take the

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following Examples. 1. Those are copulative, whose Subjects and Predicates are connected by affirmative or negative Conjunctions; as, Riches and Honours are Snares: Neither Gold nor Diamonds can Save us from Death. These are evidently compound, for each of them may be resolved into two Propositions, viz. Riches are Snares, and Honours are Snares: Gold cannot fame us, &c. Diamonds cannot save us, &c. 2. In disjunctive Propositions the Parts are opposed to one another by difjunctive Particles; as, It is either Day or Night. 3. Conditional or hypotheti-cal Propositions have their Parts united by a conditional Particle; as, If the Sun Shines, it is Day. The first Part of fuch Propositions, wherein the Condition lies, is called the Antecedent, and the other the Consequent. 4. Caufal Propositions are so denominated from the causal Particles by which they are

are connected; as, We are dependent, because we are Creatures. Hither fome refer those Propositions called reduplicative; such as, Men, as Men, are rational; that is, because they are Men. 5. Relative Propositions (which are near a-kin to conditional ones) express a Relation or Comparison of one Thing to another; as, Where the Treasure is, there will the Heart be. 6. Discretive Propositions are those wherein various Judgments are made denoted by the Particles but, though, &c. as, A good Boy may play, but should not forget his Task: Job was patient, though his Affliction was great.—The fecond Sort of compound Propositions, where the Composition is not so evident, are chiefly Exclusives and Exceptives. The former are fo denominated from the exclusive Words, alone, only, &c. as, God alone is eternal. The latter

latter are known by the exceptive Words, besides, unless, none but, &c. as, No Animal, besides Man, is rational. These seem to be fingle Propositions, but a little Confideration will shew that they contain two at least. The first (for inflance) may be refolved into these: God is eternal; and, No other Being is fo .- I might add more Diffinctions under this Head, and spend Time in shewing whereon the Truth of these several Propositions depends, as also how they are to be opposed or contradicted, but I think this would be of little Service, fince a moderate Share of common Sense will be sufficient for these Purposes, without the Formality of Rules.

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Q. How are Propositions distinguished with regard to their SENSE?

A. According to their Sense or Signification, they are distinguished into True and False. A true Proposition repre-

represents Things as they really are in themselves; as, Birds bave Wings: Brutes are not insensible Machines. A false Proposition represents Things otherwise than they really are; as, Birds bave no Wings: Brutes are insensible.

Q. Is there any certain Mark whereby we can distinguish Truth from Falf-

bood?

A. Yes, the Criterion or distinguishing Mark of Truth is EVIDENCE; that is, a clear and distinct Perception of the Agreement or Disagreement of I-deas to one another: For since we cannot with-hold our Assent when the E-vidence is plain and strong, we should be necessarily led into Error if complete Evidence could be found in Propositions that are false; but it would be impious to suppose, that the God of Truth and Goodness would

would ever oblige his Creatures to be fo deceived.

Q. How are Propositions distinguished with respect to their Evi-DENCE?

A. According to their different Degrees of Evidence they are distinguished into Certain and Daubtful.

Q. What is a certain Proposition?

A. That wherein the Agreement or Disagreement of the Ideas appears so plainly to the Mind, that we cannot forbear assenting to it; as The Whole is greater than a Part: Two and Two make Four. Every Circle has a Center. Propositions of this Kind make what we call Knowledge.

Q. What is a doubtful Proposition?

A. That whose Evidence is not so clear and strong as to force the Assent of the Mind, but permits us to sufpend our Belief at Pleasure; as, The Moon

Moon is inhabited: The World will be destroyed in less than a thousand Years. Such uncertain Propositions are what we call Opinions.

Q. Does not this last Sort of Propositions admit of a farther Distinc-

tion?

A. Yes, they are distinguished into Probable and Improbable. We call that a probable Opinion or Proposition, when the Evidence of it is greater than the Evidence of the contrary: When the Evidence or Arguments are strong. er on the contrary Side, we call it, improbable: But if the Arguments on both Sides appear equally strong, we commonly call it doubtful. And in general all Propositions are doubtful wherein we can perceive no sufficient Marks either of Truth or Falshood: In which Case the Mind ought to sufpend its Affent, till superior Evidence on on one Side or other incline the Balance of the Judgment.

Q. How many Kinds of Evidence

are there?

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A. Six, viz. Senfe, Consciousues, Intelligence, Reason, Faith, and Inspiration; on one or more of which all Propositions are grounded.

Q. How do you explain these se-

veral Kinds of Evidence?

A. 1. The first Kind is that which arises from the Dictates of our Senses, on which are built such Propositions as these: Grass is green: Sugar is sweet: Hunger is painful, &c. and these may be called sensible Propositions.

2. Many Propositions are built on an inward Conscioueness, or spiritual Sensation of what passes in the Mind; as, Long Meditation on one Thing is tiresome: Fear is a troublesome Passion: I am desirous of Knowledge, &c. These Propositions are not distinguish-

[74]

ed (that I know of) by any particular Name. 3. INTELLIGENCE relates to felf evident Propositions, or those Principles of Truth which are wrought (as it were) into the very Nature and Frame of our Minds, and to which we necessarily assent as foon as the Terms are understood; as, No Effett is produced without a Cause: A Part is less than the Whole, &c. These are called Axioms, Maxims, or first Principles, being the very Foundations on which all our Reasonings are built, 4. When one Truth is justly inferred or drawn from others, this is the Evidence of R.EASONING; as when I fee a Watch, I conclude, Some Artist made it; when I furvey the Heavens and the Earth, I infer, There is a God auho created them. Propositions built on this Kind of Evidence are called Conclusions, or rational Truths; and the Knowledge we thus acquire is properO

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ly called Science. 5. The Evidence of FAITH is that which is derived from the Testimony of others. By this we know that there is such a Country as Egypt, that there was fuch a City as Troy, and such a Poet as Homer. This, in short, makes a great Part of our Knowledge, there being ten thoufand Things which we believe upon the Authority of those who have spoken or written about them; and as these Persons are many or few, and of more or less Wisdom and Credit, so our Faith is stronger or weaker, and the Proposition believed is either certain or doubtful; but in Matters of Faith a very great Probability is call'd a moral Certainty. When we believe any Thing upon the Word of Man, it is called Human Faith, but when we believe, because God has revealed it, that is Divine Faith; and the infal-H 2 lible dence is called fupernatural Certainty, 6. Another Sort of Evidence, distinct from all the former, is INSPIRATION, or a convincing and indubitable Impression of any Truth made upon the Mind by God himself. Propositions built on such Evidence are called inspired Truths. This is Divine Revelation in the first and highest Sense, being the Dictates of the Holy Spirit in an immediate Manner.

CHAP. III.

Of the Opposition and Conversion of Propositions.

Q. WHAT is farther to be obferved relating to Propo-

[77]

A. It is proper to take Notice, that the Distinction of Propositions into universal and particular is said to be according to their Quantity; but when they are distinguished into affirmative and negative, this is said to be according to their Quality. With respect to both Quantity and Quality they are distinguished into sour Kinds, which Logicians denote by the Vowels A, E, I, O, thus:

A E denotes a Universal Affirmative.
Universal Negative.
Particular Affirmative.
Particular Negative.

Of these several Forms the following Propositions are Examples:

A All Men are mortal.

E No Men are mortal.

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I Some Men are mortal:

O Some Men are not mortal.

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Q. Do

Q. Do not Logicians speak of the Opposition and Conversion of Propositions?

A. Yes, they have faid a great deal more than is worth repeating here; but it seems proper to explain briefly what they mean by opposite and convertible Propositions.

Q. What Propositions are said to be

oppofite?

A. When two Propositions have the same Subject and the same Predicate, and what is denied in one is affirmed in the other, either in Whole or in Part, they are said to be opposite.

Q. Are there not several Species of

this Opposition?

A. Yes; if the two Propositions are opposite both in Quantity and Quality, they are called Contradictory; as,

A All Men are mortal.

O Some Men are not mortal.

Thefe

These contradictory Propositions can never be both true, or both false, at the same Time.

If two Univerfals differ in Quality, they are called Gontraries; as,

A All Men are mortal. E No Men are mortal.

These cannot be both true together, but may be both false.

Two Particular Propositions, opposite in Quality, are called Subcontraries; as,

I Some Men are mortal.

O Some Men are not mortal.

These may be both true, but cannot be both false.

Propositions which differ only in Quantity, are called Subalterns; but there are not properly opposite, because the particular Proposition is al-

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ways included in the universal one;

A All Men are mortal.

I Some Men are mortal:

Or thus,

E No Men are mortal.

O Some Men are not mortal.

The Properties of these Propositions are, 1. If the universal one be true, the particular one will be true also, but not on the contrary. 2. If the particular Proposition be false, the universal will be so too, but not the contrary. 3. They may be sometimes both true, and sometimes both false.

Q What is meant by the Conver-

fion of Propositions?

A. This is when the Subject and Predicate of a Proposition may change their Places, and yet the Truth be preserved; which may always be done

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in Universal Negatives and Particular Affirmatives; as,

E \ \ No Virtue is Vice, may be conversed, No Vice is Virtue.

Here we see the Subject of the former Proposition is made the Predicate of the latter, and the Predicate the Subject, yet both are equally true. So likewise,

> I Some Soldiers are Cowards; I may be converted, Some Cowards are Soldiers.

To say much more upon this Head would be spending Time without any real Advantage, as it would be trifling about a Form of Words, rather than discoursing about the Matter. But it may be observed, that there are some Propositions which may be always

always converted with Truth, by reafon of the Ideas or Matter whereof they are composed. This is the Case in Propositions whose Predicate is a true Definition of the Subject, or the Difference of it; or the highest Degree of any Property or Quality; or, in short, whenever the Subject and Predicate are exactly of the fame Extent or Comprebenfion: As, A Triangle is a Figure composed of three Sides; and, A Figure composed of three Sides is a Triangle: Religion is the trueft Wisdom; and, The trueft Wisdom is Religion. Adam was the first Man; and, The first Man was Adam. Such Propositions as these are properly convertible, and are called reciprocal Propositions.

[83]

CHAP. IV.

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Of PREJUDICES, or the Springs of False Judgment.

HAVE you any Thing more to add concerning Propositions?

A. No; enough has been faid concorning Propositions, in themselves confidered: But before I proceed to the third Part of Logic, I shall endeavour to point out the chief Springs and Causes of our Mistakes in judging of Things, and to lay down some Rules to avoid them. Our rash Judgments or Mistakes are called PREJUDICES, and fo are the Springs of them; of which there is a vast Variety attends Mankind in every Age and Condition of Life; and they are so interwoven with each other, as well as with the Powers of Human Nature, that it is fometimes difficult to make a proper DiftineDistinction between them: But for the Sake of Method they may be reduced to the following Heads, viz. Prejudices arising from Things, from Words, from Ourselves, and from other Persons.

Q. Which are the Prejudices arif-

ing from THINGS ?

A. Y. The Obscurity of some Truths, and the Difficulty of discovering them, is one Source of falle Judgment. This Sort of Prejudice, as well as most others, is cured by Patience and Diligence in our Enquiries, and by suspending our Judgment till we have sufficient Evidence of the Truth. The outside Appearance of Things and Persons frequently leads us into Mistakes. But this Prejudice is removed by an Acquaintance with the World, and observing that Things are sometimes better and fometimes worse than they outwardly appear. A grey Beard is

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is not a certain Sign of Wisdom; and a rough Diamond, though worth an immense Sum, may feem to us of no Value at all. 3. A Mixture of different Qualities in the Same Thing, is another Spring of rash and mistaken Judgment; for we are very apt to judge of the whole Object according to that Quality which makes the first or the strongest Impression upon us, without confidering any of the Rest. This Sort of Prejudice is cured by learning to make just Distinctions, and not to judge in the Lump, either of Men or Things. 4. The different Lights in which a Thing is placed, and the different Views in which it appears to us, often occasions us to form wrong Judgments concerning it, To correct which Prejudice we should view a Thing on all Sides, and compare its feveral Appearances with one another. before we fully determine our Opinion. 5. The

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Jeas is another Source of rash Judgment and Mistake: As a Child that has drank a bitter Potion retains a bitter Idea of the Cup that held it, and is not easily persuaded to drink out of it again. Many Prejudices of this Kind we imbibe in our Youth, to remove which we must endeavour to separate those Ideas which have no natural and necessary Connection; but have been joined together only by Fancy, Chance, or Custom.

Q. What Prejudices arise from

WORDS

A. 1. We are led into feveral Mistakes by insignificant, equivocal, and synonymous Words; to avoid which let the Reader carefully observe what has been said in Chap. IV. of the first Part of this Treatise, and in Chap. V. concerning the Definition of Names.

4. Words

2. Words joined in Speech, and compofing a Discourse, are apt to lead us into Mistake two Ways. On the one hand, when a Man writes or speaks much to the Purpose, but has not a good Style or an engaging Manner of Expression, we frequently despise an excellent Discourse, and overlook the wisest and the justest Sentiments. On the other hand, we are often charmed into Error by a Man of Eloquence, whose Art conceals or obscures the Truth, and places Falshood in a pleafing Light. To secure ourselves against these Dangers, we must learn to distinguish between Language and Ideas, and to judge of Things in their own Natures, and in their just Relation to one another.

Q. Which are the Prejudices arifing

from OURSELVES?

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A. 1. The Prejudices of Infancy, which are derived from the Weakness

of our Reason, and Incapacity to judge rightly of Things in our Childhood. Thus Boys are apt to think Learning an unpleasant Thing, because perhaps they have been whipt at School; and to look upon those as their best Friends who beg them a Holiday, or screen them from Correction when they have done amis. The Way to get rid of these Prejudices is to re-examine the Opinions framed in our tender Years, when our Reason is strong and mature, 2. The Prejudices of Sense, or the false Informations of Things we receive from our Senses, are another Spring of rash Judgment and Mistake. Thus many Beople suppose the Sun and Moon to be flat Bodies, and much about the same Bigness, because they appear so to the Eye; and because we do not feel the air press heavy upon us, we are inclined to think it has no Weight. Such Prejudices as these remain

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remain with the Generality of Mankind, till they are cured by Learning and Philosophy. 3. Many false Judgments take their Rife from our Ima-gination, or the Distates of Fancy. Some Persons take for Truth whatever is strongly impressed upon the Imagination; and if they fancy (for Instance) this or that particular Number more fortunate than the rest, they will chuse a Lottery-ticket accordingly, and think themselves sure of Success. To prevent such Deceptions as these, we must take care to bridle the Extravagancies of Fancy, to fet that unruly Faculty aside in our Enquiries after Truth, and to let calm Reason determine our Opinions. 4. From the various Passions or Affections of the Mind arise innumerable Prejudices. Love makes even Blemishes appear as Beauties; Fear multiplies our Dangers; Envy represents our Neigh-

Neighbour's Condition better than it is; and to Despair the very least Difficulty feems unsurmountable. For these Prejudices the best Remedy is to keep a continual Watch over our Paffions, and not to form our Judgments when the Affections are warmly engaged, but when the Mind is perfectly ferene and composed. 5. The Fondness we have for SELF, and for Persons and Things that have Relation to ourselves, is another great Spring of false Judgments. The Laplandar, amidst his Ice and Snows, is as fond of his native Country as he who is boin amongst the Gardens of Italy. Our Kindred, our Party, our Opinions, our very Names, feem to have fomething peculiarly valuable in them, and we cannot bear that others should think meanly of them. In a Word, the Prejudices of this Kind stick fo closely to our Natures, and have fuch a per5

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a pernicious Influence on our Under, standings, that we cannot too much guard against them in our Searches after Truth, and in forming our Judgment of what is Right and Wrong. 6. The peculiar Tempers and Humours of the Mind have an Influence upon Mens Judgments, and are the Occafion of frequent Mistakes. Some are so easy and eredulous, as to believe every thing that has the least Shadow of Evidence; whilst others are led by a Spirit of Contradiction to oppose every Thing that is advanced either in Writing or Conversation. Some are always positive, others always doubting, and others perpetually changing one Opinion for another. Tempers (and more that might be mentioned) are very injurious to a right Judgment of Things; but may be relieved by Patience in Study, and a diligent and honest Attention in the Search Search of Truth. 7. A Dulness of Perception, a Defect of Memory, a Narrowness of Mind, and several other Weaknesses belonging to Human Nature, are the Causes of Mistakes and Inconsistencies in Judgment; nor can we expect to be quite free from Errors and Impersections in the present Life.

Q. Which are the Prejudices arising from OTHER PERSONS?

A. 1. The Prejudices of Education, which we imbibe from our Nurses, from unskilful Teachers, from our School-fellows, from Servants, or any other Persons with whom we are conversant in our younger Years. It is then we are taught that there are Hobgoblins in the Dark; that the Screeching of an Owl presages Death in a Family or Neighbourhood; that such and such Days are lucky and unlucky, and a thousand such ridiculous Stories.

Stories, which have too lafting an Influence on the weaker Part of Mankind. We take our Religion from our Parents and Tutors, and Millions are born, and live, and die in the fame Faith, without examining any one Article, or being able to give any other Reason for it, than that they were taught and believed fo from their Infancy. These Prejudices are to be cured by bringing the Principles of our Youth to the Test of calm and severe Reason when we come to Years of Maturity. 2. Another Sort of Prejudice arises from the Custom or Fashion of those among st whom we live. Our Cookery, our Drefs, our civil and religious Forms and Practices, are all regulated by Custom; and what appears elegant, polite and decent in one Country, is aukward and ridiculous in another. To remove Prejudices of this Kind, it is of excellent

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Use to travel, or to read the Travels of other Men, and the History of past Ages; and whenever we pass a Judgment concerning the Nature of Things, let us remember that Truth and Reason are invariable, and do not change with Fashion or Custom. 3. The Authority of Men is the Spring of another Kind of Prejudices. We very often pay an unreasonable Deference to the Authority of the Ancitnes, and many impertinent Trifles are reverenced for no other Reason but because they bear the Mark of Antiquity. A Writer or Preacher of a great Name draws a Multitude of Followers into his own Mistakes; the poor Man often believes as his wealthy Neighbour does, and the Opinion of the 'Squire is followed by half the Parish. But to remove these Prejudices let us remember, that no Man, of whatever Rank or Character, has any

any just Pretence to sway the Judgment of others by his own Authority; and that Riches, Honours, Titles, and Reputation, are not always accompanied with Truth and Wisdom. The Prejudices arising from the Manner of Proposal are near a-kin to those of Authority. Some Persons readily believe what another dictates with a positive Air and a great Assurance: Others quickly swallow any Doctrine when it is proposed with all the Airs of Piety, and solemn Appeals and Protellations. Some are frighted into the Belief of particular Doctrines, because a Man of great Name or Character pronounces the contrary Sentiments beretical and damnable; whilst others are led into Error by a fost Address, and the engaging Methods of Persuafrom and Kindness. The Way to avoid fuch Mistakes as these is to distinguish well well between the Substance of any Doctrine, and the Manner in which it is proposed, attacked, or defended; and not to yield our Assent to any thing but the convincing Evidence of Truth.

Having thus pointed out many of the numberless Prejudices that attend Mankind, and the Means by which they may be avoided or removed, I shall conclude this Part of Logic with some general Directions to affist us in forming a true Judgment of Things.

CHAP. V.

General Directions for Jubaind aright.

Judgment? HICH are the best Rules to

A. Some

A. Some Hints for this Purpose have been occasionally dropt already; but it will not be a needless Repetition to collect them in this Place, and exhibit at one View such general Directions as are proper to affist us in judging rightly. A great Number might be framed that would contribute to this End, but the most useful are those which follow.

DIRECTION I. When we are fearching after Truth, we should bring all our old Opinions to a fresh Examination, enquire into the Ground of them, and cast off those Judgments which appear to have been formed without sufficient Evidence. This indeed cannot be done all at once, and sew People have either Time or Capacity to take such a Review of their Opinions; but so far as we are able it should be done by prudent Steps and Degrees, till our Principles are reformed,

reformed, or at least established upon

juster Foundations.

DIRECT. II. We should endeavour to have clear, complete, comprehensive, extensive, and orderly Ideas of those Objects upon which we pass any Judgment, so far as we have Occasion to judge concerning them, and as our impersect Knowledge of Things will admit. This Direction is not to be strictly observed in Matters of Testimony, wherein it is not absolutely necessary to have clear and distinct Ideas of what is proposed to our Belief, provided we have sufficient Evidence of the Credibility of the Proposer.

DIRECT. III. Compare the Ideas of a Proposition with the utmost Attention, and observe how far they agree, and wherein they differ. But in making this Comparison between the Ideas of the Subject and the Predicate, take take heed that you neither add to not diminist them.

DIRECT. IV. Search diligently and honeftly for Evidence of Truth, and be ready to receive it on which Side foever it appears. Take great Care that your Wishes or Inclinations do not pervert

your Judgment.

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DIRECT. V. Suspend your Judgment, and neither affirm nor deny without sufficient Evidence. It is more particularly necessary to observe this Direction, when the Propositions to be examined are supported by Education, Authority, Interest, or any other powerful Prejudice.

DIRECT. VI. Judge of every Propofition by the proper Mediums or Means whereby its Evidence is to be obtained. That is, if we judge of Sounds, Colours, or any other Objects of Sense, we must do it by the Use of our Sen-

Ses:

Jes: If we judge of the Nature of Spirits, their Powers and Perceptions; we must apply to our Consciousness of what paffes within our own Mind: If we judge of Matters done in past Ages, or in distant Countries, we must have Recourse to the Testimony of others.

DIRECT. VII. We should have some general Principles of Truth Settled in our Minds, that they may always be ready to afift us in forming our Judgments of others Things whose Evidence is less obwious.

DIRECT. VIII. The Degrees of our Affent should always bear an exact Proportion to the different Degrees of Evidence. This will fecure us from many Mistakes both in Speculation and Practice.

DIRECT. IX. Our Minds Should be always open to receive the Truth;

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nor should we ever think ourselves too quise to be instructed. Let us part with the oldest and most favourite Opinions for the sake of Truth, and remember that our Knowledge is always capable of Improvement.

PART III.

Of REASONING.

Q. WHAT is meant hy REASON-

Part of Logic?

A. It has been shewn that the first Operation of the Mind is Perception, whereby our Ideas are framed; and that the second is Judgment which joins or disjoins our Ideas, and forms a Proposition. We now come to the third Work of the Mind, called Reasoning or Argumentation, whereby several Propositions are joined together, to form an Argument or Syllogism

CHAP. I.

Of the Nature of a SYLLOGISM, and the Parts of which it is composed,

HAT is a Syllogism?

A. It is an Argument, or Form of Reasoning, whereby we infer something that is less known from Truths, which are more evident. Or, it is an Argument consisting of three Propositions, disposed in such a Manner, as that the last is necessarily inferred from the two former; so that if the first and second Propositions be granted, the Conclusion must be granted also. This will easily be understood by the following Example:

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Our Creator must be worshipped.

God is our Creator.

Therefore God must be worshipped.

Q. What

Q. What is to be confidered in the Constitution of a Syllogism?

A. The Matter and the Form.

Q What is meant by the MATTER

of a Syllogism?

A. The Matter is the three Propositions of which it is composed; and these are made up of three Terms or Ideas. The Terms are called the remote Matter, and the Proposition the immediate Matter of a Syllogism.

Q. What are the Names of the fe-

veral Terms?

A. They are called the Major, the Minor, and the Middle. The Major or Greater Term is the Predicate of the Conclusion; the Minor or Lesser Term is the Subject, and these are called Extremes. The Middle Term is one chosen at Pleasure, and so disposed in two Propositions, as to shew the Agreement or Disagreement between the Major and Minor Terms in the

the Conclusion; and therefore the Middle Term is fometimes called the Argument.

Q. What are the Names of the Pro-

positions in a Syllogism ?.

A. The first is usually called the Major, wherein the Middle Term is connected with the Predicate of the Conclusion: The second is called the Minor, (and sometimes the Assumption) wherein the Subject of the Conclusion is connected with the Middle Term. These Propositions have the Name of Premiss; and the third, which is drawn from them, is the Conclusion.

Q. What is the FORM of a Syllo-

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A. It is the framing and disposing the Premisses justly, and from thence drawing a regular Conclusion or Inference. This Inference is generally expressed by the Particle Therefore, or the Latin Word Ergo, (which is of the K

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fame Signification) when the Argus ment is formed according to the Rules of Art: But in common Discourse or Writing, the Parcicles for, because, &c. fhew the Act of Reasoning, or inferring one Thing from another, as well as then and therefore; and when fuch Words are used, a Syllogism is expressed or implied, though perhaps the three Propositions are not disposed in a regular Form.

CHAP. II.

Of the various Kinds of SYLLOGISMS

NTO how many Kinds are Syllogisms distinguished?

A: They are diffinguished into feveral Kinds, either according to the Question to be proved, their Nature

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and Composition, or the middle Term which is used to prove a Question.

Q. How are they diffinguished in respect of the QUESTION to be

proved?

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A. Into Universal Affirmative, Universal Negative, Particular Affirmative, and Particular Negative. This is sometimes called a Division of Syllogisms according to the Conclusion; for there may be so many Sorts of Conclusions, denoted by the Letters A, E, I, O, as may be seen in Chap. III. of the second Part of this Treatise.

Q. How are Syllogisms distinguished with respect to their NATURE and COMPOSITION?

A, Into Single and Compound. A Single Syllogism is made up of three Propositions: A Compound Syllogism contains more than three, and may

be formed into two or more Syllogisms.

Q. Are not Single Syllogisms sub-

divided into feveral Sorts?

A. Yes, into Simple, Complex, and Conjunctive.

Q. What is a Simple Syllogism?

A. Those properly called Simple Syllogisms are composed of three plain, fingle, or categorical Propositions, wherein the Middle Term is evidently joined with one Part of the Question in the Major Proposition, and with the other in the Minor, from whence a plain and single Conclusion is naturally drawn. Such is the Syllogism in the foregoing Chapter.

Q. Which are the Rules relating to the Formation of fimple Syllo-

gifms ?

A. They are these. 1. The Middle Term must not be taken twice particularly, but once at least universally.

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2. The Ferms in the Couclusion must new ver be taken more universally than they are in the Premisses. 3. A negative Conclusion cannot be proved by two affirmative Premisses. 4. If one of the Premisses be negative, the Conclusion must be negative. 5. If either of the Premisses be particular, the Conclusion must also be particular. 6. No Conclusion can be drawn from two negative Premisses. 7. Nor can any thing be concluded from two particular Premisses.

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y. be Here it is proper to take some Notice of the various Moods and Figures of Simple Syllogisms, which have been invented by Logicians, and about which they have spent a great deal of Time and Paper; for though the Light of Nature and a good Judgment contribute more to true Reasoning than all these scholastic Subtleties, yet in some Cases they may have K 2 their

their Use, and therefore we shall briefly explain them.

Q. What is the Figure of a Syllo-

gifm ?

A. It is the proper Disposition of the Middle Term with regard to the Extremes, or Parts of the Question.

Q. What is the Mood of a Syllogism?

A. It is a proper Disposition of the Propositions according to their Quantity and Quality, that is, their universial or particular Affirmation or Negation. The several Moods of Syllogisms have certain artificial Names give them by Logicians, wherein the Consonants are neglected, and only the Vowels A, E, I, O, regarded, which denote the Quantity and Quality of the Propositions.

Q. How many Figures are there?

A. There are usually reckon'd three,

though fome add a fourth,

Q. How

Q. How is the Middle Term difpo-

fed of in these Figures?

A. In the first Figure the Middle Term is the Subject of the Major Proposition, and the Predicate of the Minor. In the second the Middle Term is the Predicate of both the Premisses. In the third it is the Subject of both the Premisses.

Q. How many Mgods does the first

Figure contain?

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A. Four, whose Names are Barbara, Celarent, Darii, and Feria; of which the following are Examples;

> BAR- Every wicked Man is miferable.

> BA- All Tyrants are wicked Men.

> RA. Therefore all Tyrants are miserable.

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Ce- They who neglect their Duty are not wife.

LA- Idle Boys negled their Duty.

RENT. Therefore idle Boys are not wife.

DA- They who please God are bappy.

RI- Some poor Men please God.

1. Therefore some poor Men are bappy.

FE- Disobedient Children are not Blessings.

11- Some Children are disobe-

o. Therefore some Children are not Blessings.

eQ. How many Moods are there in the fecond Figure?

A. Four,

[113]

A. Four, the Names whereof are Cefare, Camestres, Festino, and Baroco; of which take these Examples.

CE- No Liar is fit to be believed.

8A- Every good Cristian is fit to be believed.

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RE. Therefore no good Christian is a Liar.

CA- All pious Men deserve Es-

MES- No Robbers deserve Es-

TRES. Therefore no Robbers are pious Men.

FE- No Sin is excufable.

STI- Some Faults are excufable.

NO. Therefore fome Faults are not Sins.

[114]

BA- Every Part of Religion is rational.

RO- Some Doctrines are not ra-

co. Therefore some Doctrines are no Part of Religion.

Q. How many Moods are there in

the third Figure?

A. Six, the Names of which are Darapti, Felapton, Disamis, Datis, Bocardo, and Ferison. Examples of each follow.

DA- All good Christians shall be

RAP- All good Christians bave finned.

Ti. Therefore some who have finned shall be saved.

[115]

FE- No Hypocrites are pleasing to God.

LAP- All Hypocrites appear to be religious.

to be religious are not pleasing to God.

DI- Some Men are honourable.

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SA- All Men bave their Imperfections.

Imperfections are honourable.

DA- All wirtuous Men are bappy.

TI- Some virtuous Men are beggars.

St. Therefore Some Beggars are bappy.

[116]

Bo- Some Wars are not to be a-

DO. Therefore some Bloodshed is not to be avoided.

FE- No Afflictions are pleasant.
RI- Some Afflictions are good for

son. Therefore Some Things that are good for us are not pleasant.

Q. What are the Special Rules of

these Figures?

A. In the first, the Major Proposition must always be universal, and the Minor Affirmative; but it admits of all Sorts of Conclusions, whether universal or particular, affirmative or negative.—In the second, the Major must also be universal; and one of the

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in a rent ple : the Premisses, with the Conclusion, always negative.—In the third, the Minor must be affirmative, and the Conclusion always particular.

Q. How is the Middle Term placed

in the fourth Figure?

A. It is the Predicate in the Major Proposition, and the Subject in the Minor; but this is such an indirect Way of drawing a Conclusion, that it may be looked upon as useless, and is not worth explaining by Examples.

Q. What is a Complex Syllogism?

A. Those Syllogisms are called Complex, wherein the Middle Term is not connected with the whole Predicate, or the whole Subject, in two distinct Propositions, but is intermixed and compared with them by Parts, or in a confused Manner, and in different Forms of Speech. For Example:

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The Devil is a wicked Spirit.

Some Indians worship the Devil.

Therefore some Indians worship a wicked Spirit.

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In this Syllogism the Predicate of the Conclusion is avership a wicked Spirit; Part of which is joined with the Middle Term Devil in the Major Proposition, and the other Part in the Minor. This is reduced to a simple Syllogism, in the Mood Darii, stands thus:

The Devil is a wicked Spirit.

What some Indians worship is the Devil.

Therefore what some Indians wor-

fhip is a wicked Spirit.

But the conclusive Force of this Syllogism was evident enough without such Reduction: And the same may be

be said of a vast Number of other Araguments used in the Writings of learned Men, as well as in common Conversation, it often appearing plainly that the Inference is just and true, though the Form of the Syllogism is irregular and confused.

Q. What is a Conjunctive Syllo-

gism?

A. It is one whose Major Proposition has diffinet Parts, which are joined by a Conjunction, or some such Particle of Speech. These Syllogisms are of various Kinds, but the chief of them are four, viz. the Conditional, the Disjunctive, the Relative, and the Connexive; which the following Examples will explain.

1. A Conditional or Hypothetical Syllogism is that whose Major or Minor, or both, are conditional Propositions;

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[120]

If there be a God, the World is governed by Providence. But there is a God. Therefore the World is governed by Providence.

Here the Antecedent is afferted in the Minor, that the Consequent may be afferted in the Conclusion; which is called arguing from the Position of the Antecedent to the Position of the Consequent.—Again:

If the Sun shines, it is Day. But it is not Day. Therefore the Sun does not shine.

Here the Consequent is contradicted in the Minor Proposition, that the Antecedent may be contradicted in the Conclusion; which is called arguing from the removing of the Consequent to the removing of the Antecedent.

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2. A Disjunctive Syllogism is when the Major Proposition is disjunctive, being connected by the Particles or, either, &c. as in the following Instances:

We either desire to be happy or miserable.

But we do not defire to be mifer-

Therefore we defire to be bappy.

This Kind of Syllogism may have many Parts or Members; as,

It is either Spring, Summer, Autumn, or Winter.

But it is neither Spring, Summer, nor Autumn.

Therefore it is Winter.

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3. A Relative Syllogism is when the Major Proposition is relative; as

Where the Treasure is, there is the Heart.

But a Miser's Treasure is in his Bags.

Therefore his Heart is there also.

Or, A Saint's Treasure is in Heaven: Therefore bis Heart is in Heaven also.

To this Head may be referred those Syllogisms that relate to Proportion; as,

As Three are to Six, so are Four to Eight.

Rut Three make the Half of Six. Therefore Four make the Half of Eight.

4. A Connexive Syllogism has generally the Parts of the Major joined together by a Copulative, and is by some called a Copulative Syllogism; as,

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No Man can serve God and Mam-

But the covetous Man ferves Mam-

Therefore be cannot ferve God.

Or, The true Christian serves God.
Therefore he cannot serve Mammon.

N. B. In all Kinds of Conjunctive Syllogisms great Care should be taken that the Major Proposition be true; for upon that depends the whole Force of the Argument. Thus much for Single Syllogisms.

Q. Which are properly called Com-

pound Syllogisms ?

A. Those which contain more than three Propositions, being made up of two or more single Syllogisms, into which they may be resolved. Of these there are several Kinds, the chief whereof

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are the Epichirema, Dilemma, Prosillogism, and Sorites.

Q What is an Epichirema?

A. A Syllogism which proves the Major or Minor, or both, before it draws the Conclusion; as,

Sickness may be good for us; for it shews us our Frailty, weans us from worldly Enjoyments, and makes us think of dying.

But we are uneasy under sickness; which we manifest by Complaints, Groanings, &c.

Therefore we are sometimes uneasy under that which is good for us.

Q. What is a Dilemma?

A. It is a Sort of Argument wherein the Whole is divided into all its Parts or Members, and then something is inferred concerning each Part, which is finally inferred concerning the Whole. This Thed, Sid Con For

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This Kind of Syllogism is so contrived, that let your Adversary take which Side of the Question he pleases, the Conclusion turns to his Disadvantage. For Example:

In Heaven we shall either have Defires or not.

If we have no Defires, then we shall have full Satisfaction: If we have Defires, they will be satisfied as fast as they arise.

Therefore in Heaven we shall be compleatly satisfied.

A Dilemma may be faulty three Ways, First, when the Parts or Members of the Division in the Major are not fully enumerated; secondly, when what is afferted in the Minor concerning each Part is not true; thirdly, when the Argument may be retorted with equal Force upon him who uses

it. This last was the Fault of the celebrated Dilemma of Protagoras, which he made use of on the following Occasion. Protagoras taught Euathlus the Art of Pleading, in Confideration of a Sum of Money, which Euathlus promised to pay him the first Day that he gained any Cause in Court. After a Time Protagoras goes to Law with Euathlus for the Money, and argues in this Manner: Either I shall gain the Cause, or you will gain it. If I gain the Cause, you must pay me according to the Sentence of the Judge: If you gain it, you must pay me according to the Covenant between us. Therefore whether the Cause goes for me or against me, you must pay me the Money. But Euathlus thus retorted the Dilemma upon his Master. Either I shall gain the Cause, or lose it. If I gain it, nothing will be due to you according to the Sentence: If I lofe it, nothing will be due

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to you according to our Covenant. Therefore, let the Gause go which Way it will, I shall pay you nothing.

Q. What is a Profyllogism?

A. It is an Argument composed of two Syllogisms, so connected, that the Conclusion of the former is the Major or Minor of the latter; as,

Blood cannot think:

But the Soul of Man thinks :

Therefore the Soul of Man is not Blood.

But the Soul of a Brute is his

Therefore the Soul of a Man is different from the Soul of a Brute.

Q. What is a Sorites?

A. It is an Argument wherein feveral Middle Terms are successively

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connected in several Propositions, till the last Proposition connects its Predicate with the Subject of the first.—Such was the merry Argument of Themistocles, to prove that his little Son, under ten Years of Age, governed the whole World: My Son governs his Mother; his Mother me; I the Athenians; the Athenians the rest of Greece; Greece commands Europe; Europe the whole World: Therefore my Son governs the whole World.

In this place it may not be improper to add a Syllogism called *Induction*, wherein from several particular Propositions a general one is inferred; as,

> Purgatory cannot be proved from the Gospels; Nor from the Acts of the Apostles; Nor from the Epistles.

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Nor from the Book of Revelations: Therefore it cannot be proved from the New Testament.

These Kinds of Syllogisms, which have more than three Propositions, may be called redundant; but there is a defective or imperfect Kind, called an Enthymem, which is the most common Sort of Argument both in Writing and Conversation.

Q. What is an Enthymem?

A. An Argument confitting only of two Propositions, viz. the Conclusion, and one of the Premisses, the other being suppressed, as being sufficiently clear and obvious, and easily supplied by the Understandings of Mankind; as,

True Religion is accompanied with good Morals:

Therefore a Knave is not truly re-

Q. How are Syllogisms distinguish'd with respect to the MIDDLE TERM?

A. Syl-

A. Syllogisms or Arguments, (for so they are properly called as we now consider them) are said to be Grammatical, Physical, Moral, Theological, &c. according to the Art, Science, or Subject from whence we borrow the Middle Term, or Topic, which we make use of in the Proof of any Proposition. For Instance, if we endeavour to prove from the Principles of Reason and Equity, that no Man should steal his Neighbour's Goods, the Argument is Moral; but if we prove the same Thing from Scripture, then it is a Theological Argument.

Q. Is this the only Distinction of Arguments with regard to the Middle Term?

A. No; in this respect they are diflinguished into Certain and Probable, Artificial and Inartificial, Direct and Indirect.

Q. What is the Difference between a probable and a certain Argument?

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A. If I infer that Thomas will bring himself to the Gallows, because he commits frequent Robberies on the Highway, this is a probable Argument, not a certain one, for it is possible he may die a natural Death.

Q. Have certain Arguments any

other Name?

A. Yes, they are usually called Demonstrations, because their Conclusions are founded on clear and undeniable Principles; and they are generally divided into two Sorts: (1.) Demonfirations à priori, whereby an Effect is proved from a Cause; as, I prove the Scriptures to be true, because they were distated by the Spirit of God, who cannot lye. (2.) Demonstrations à posteriori, whereby a Cause is proved from an Effect; as, when I view a Watch, or other curious Machine, I conclude it was made by some Artificer .-- N. B. Though these are peculiarly ruliarly called Demonstrations, yet the Name is frequently given to any strong and convincing Argument.

Q. What is an artificial Argu-

ment?

A. That which is taken from the Nature and Circumstances of Things; and such an Argument, if strong, produces a natural Certainty.

Q. What is an inartificial Argu-

ment?

A. That which is founded on the Testimony of another: And Human Testimony, if strong, produces a moral Certainty; but Divine Testimony produces a supernatural Certainty, which is of the highest Kind.

Q. What is a direct Argument?

A. That wherein the Middle Term proves the Question itself, and infers the Proposition which was the Matter of Enquiry.

Q. What is an indirect Argument?

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A. An Argument is faid to be indirect or oblique, when the Truth of the Thing enquired after is made appear by proving or refuting some other Proposition .- Indirect Arguments are of several Kinds, viz. (1.) When any Proposition is proved to be true by shewing the Falsity, Improbability, or Impossibility of some contradictory Proposition; and when it is shewn, that if the original Proposition be supposed false, or denied, some great Abfurdity will follow. This Logicians call a Proof per impossible, or a Reductio ad absurdum. (2.) When some Proposition is proved to be true that is less probable, and thence it is inferred that the original Proposition is true because it is more probable. This is called an Argument ex magis probabili ad minus. (3) When we prove the Truth of any Proposition, upon which our Adversary had before agreed to give up the Question. This is called an Argument ex concesso.

Q. Are there any other Arguments which derive their distinction from the

Middle Term?

A. Yes, several; whose Latin Names it may be proper to mention and explain, as they are frequently made use of by English Authors. (1.) An Argument founded on the professed Principles or Opinions of the Person with whom we argue is called Argumentum ad Hominem, an Address to our Principles or Profession. (2.) An Argument drawn from the Nature or Existence of Things, and addressed to the Reason of Mankind, is called Argumentum ad Judicium, an Address to our Judgment. (3.) If it be built on some convincing Testimony, it is termed Argumentum ad Fidem, an Address to our Faith. (4.) If an Argument be weak in itself, and yet an AdAn Ign ran engrar is Ad

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Adversary is not able to consute or answer it, this is called Argumentum ad Ignorantiam, an Address to our Ignorance. (5.) An Argument suited to engage the Inclinations and passions, rather than to convince the Judgment, is called Argumentum ad Passiones, an Address to our Passions (6.) When an Argument is drawn from the Sentiments of some great or learned Man, whose Authority we revere, and are afraid or ashamed to oppose, it is termed Argumentum ad Verecundiam, an Address to our Modesty.

Q. Have you any other Distinction

of Arguments to mention?

A. Only one, which arises from the Premisses, according to which an Argument is either *Uniform* or *Mixed*. If both the Premisses are derived from the same Source of Knowledge, whether Sense, Reason, or any other, an Ar-

[136]

Argument is called uniform; but if the Premisses are derived from different Springs of Knowledge, it is called a

mixed Argument.

Having thus given an Account of the chief Kinds of Syllogisms or Arguments made use of in just Reasoning, I now proceed to those called Sophisms or Fallacies, which appear to be true, but are really false at Bottom, and are invented with a Design to embarrass and deceive.

CHAP. III.

Of the several Kinds of SOPHISMS, and the Method of solving them.

Q. WHAT is a Sopbism?

A. An Argument which carries with it the Face or Appearance

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ance of Truth, and yet leads us into Mistake.

Q. How many Kinds of Sophifms are there?

A. They are very numerous, but may all be reduced to some of the

following Heads.

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1. The first Sort is called by Logicians Ignoratio Elenchi, or a Mistake of the Question; that is, when something is proved which is neither neceffarily connected nor inconfiftent with the Thing enquired after, . For Instance, if the Question were proposed, Whether it be hurtful to drink Wine to Excess; a Sophist might endeavour to prove it not hurtful, by arguing that Wine belps Digeftion, raifes a Man's Spirits, gives him Courage, makes bim strong, active, and capable of enduring Hardsbips and Fatigues: But though all this be granted, it is easy to shew, that the excessive Drinking of Wine may be very prejudicial to him that drinks it, by bringing on Poverty, Diseases, and Death itself, as well as endangering his Happiness in the World to come.—It is a Fallacy of the same Kind, when a Disputant, finding his Adversary too hard for him, artfully turns the Discourse to some other Point which he can prove, (and which indeed his Opponent never denied) and then triumphs as if he had gained a considerable Advantage,

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2. Another Kind of Sophism is called Retitio Rrincipii, a Begging the Question, or a Supposition of what is not granted; that is, when we endea-vour to prove any Proposition by something equally uncertain and disputed. Thus a Papist pretends to prove his Religion the best, because it is derived from Christ and his Apostes, and agrees with the Doctrine of the Fathers.

thers, and of the Christian Church throughout all Ages: Whereas these are contested Points, and what Protestants

will by no means grant.

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3. A Fallacy of the same Nature with that last mentioned is the Circle; which is, when one of the Premisses of a Syllogism is questioned, and we attempt to prove it by the Conclusion; or when in a Train of Syllogisms we prove the last by the Conclusion of the sirst. Thus the Papists pretend to prove the Scriptures to be true by the Authority of their Church, and then to shew the Authority of their Church from the Scriptures.

4. There is another Kind of Sophism called non Causa pro Causa, or the assigning a false Cause. Scarce any thing is more common than this Sort of Fallacy. Astrology, or the Telling of Fortunes by the various Positions of the Stars and Planets, is built up-

on it: And it is a Sophism of this Kind, when Comets, Eclipses, Northern Lights, or such like Phænomena, are supposed to foretel the Fate of Kings and Kingdoms, Wars, Famine, and other national Calamities. In the same fallacious Manner weak People are apt to judge of accidental Events: If a Man steals a Horse, and a Twelvemonth afterwards rides a hunting, is thrown off, and has a Leg or an Arm broke, it is presently imputed to the Divine Vengeance on him for the Thest he had committed.

5. The next Sophism, which is a-kin to the former, and very frequent, is called Fallacia Accidentis, wherein, from something merely accidental to any Subject, we judge of its Nature and effential Properties. Thus, because a Neighbour, when over-heated with Exercise, received Injury by drinking

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too large a Quantity of cold Water, we are apt to condemn it as absolutely unwholesome upon all Occasions. So Wine has been pronounced an evil Thing, and the Use of it forbidden, because it has been the accidental Cause of Quarrels and Bloodshed.

6. Another Sophism of the same Nature is when we argue from that which is true in particular Circumflances, to prove the same Thing true absolutely and fimply, without any Circumstances being confidered; as if we should fay, What we buy of the Butcher we eat for Dinner: But we buy raw Meat of the Butcher: Therefore we eat raw Meat for Dinner - The Reverse of this Sophism is arguing from what is fimply and absolutely true, to prove the fame true in all particular Circumstances; as if I should wrett a Sword out of the Hand of an Enemy going to ftab M 3

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stab me, and he should argue that I ought to give it him again, because no Man should with-hold another's Property.

7. We now come to the Sophisms of Composition and Division, which are the Reverse of each other. When an Inference is drawn from Ideas in a coumpound Sense, which is only true in a divided one, this is a Sophism of Composition; as if a Man should argue thus: Two and three are even and odd: Five are two and three: Therefore five are even and odd. On the contrary, to infer a Thing concerning Ideas in a divided Sense, which is only true in a compound one, is a Sophism of Division; as if I should say, Five is one Number: Two and three are five: Therefore two and three are one Num. ber .- A Sophism of the same Kind is sometimes committed by not rightly distinguishing between the collective and

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and distributive Sense of the Word All; or by making All or No refer to Species in one Proposition, and Individuals in another.

8. The Sophisms arising from the Ambiguity of Words are more numerous than those of any other Kind; and indeed feveral of the Fallacies already mentioned might be comprehended in this Class. If we make use of Words or Phrases plainly equivocal, it is a Sophism of Equivocation; as if any one should argue thus: A Church is a Building of Stone: But a religious Assembly is a Church: Therefore a religious Affembly is a Building of Stone. Here every one fees, that the Word Church bears a very different Signification in the Major Propofition from what it does in the Minor, and therefore the Syllogism proves nothing at all. But we need not enlarge upon this Head, fince there is M 4 little

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little Danger of being imposed upon by such gross Equivocations, which a Person of common Sense discovers as soon as they are proposed, though perhaps he cannot shew the Fault of the Syllogism by the Rules of Logic.

Q. But is there no general Teit of true Syllogisms, and a Method of solv-

ing all fophistical Arguments?

A. Yes, there are two general Methods of reducing all Syllogisms to a Test of their Truth or Falshood.

Q. Which are they?

A. The first is this: In a just Syllogism one of the Premisses must conrain the Conclusion, and the other must
shew the Conclusion to be so contained.
This will appear by considering the
following Example: Whosever bridles his Passion is wise: But a virtuous Man bridles his Passions: Therefore a virtuous Man is wise.

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Here it is plain that the major Proposition contains the Conclusion, because under the general Character of one who bridles his Passions, the wirtuous Man is undoubtedly included. This is shewn or declared in the minor Proposition; and thence the Conclusion is evidently deduced, that a virtuous Man is wise. — N. B. It is not always necessary that the major Proposition should contain the Conclusion; in some Syllogisms the minor contains it, and the major shews it.

The second general Test of Syllogisms is this: As the Terms in a Syllogism are usually repeated twice, so they
must be taken precisely in the same
Sense in both Places. It is generally
some Difference in the Sense of one
of the Terms in the two Parts of a
Syllogism that renders it inconclusive
and fallacious, as appears by considering the following Sophisms. (1.)
Nothing

Nothing is better than Heaven: But a Penny is better than nothing: Therefore a Penny is better than Heaven. This Sophism is evidently founded on the different fignification of the Term Nothing, it being used in a positive Sense in the first Proposition, but in a quite opposite or negative Sense in the second. (2.) It is a Sin to kill a Man: But a Murderer is a Man: Therefore it is a Sin to kill a Murderer. Here the Sophism lies in the different Senses of the Word kill; it being used in the first Proposition to fignify killing unjufly, or without a Law; and being taken absolutely in the Couclusion for putting a Man to Death in general.

Thus much for the various Kinds of Sophisms. — I shall conclude this Part of Logic with some general Rules to assist our reasoning Powers in

their Enquiry after Truth.

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[147] CHAP. IV.

General Rules to direct our REASONING.

Q. WHICH are the best Rules to direct us how to reason well?

A. The Directions given in the preceding Part of Logic to form our Judgments aright will also be of Service to direct our Reasoning; but we may draw some farther Assistance in this Respect from a careful Observa-

tion of the following Rules.

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RULE I. We should accustom ourfelves, even in our younger Years, to
clear and distinct Ideas, to evident Propositions, and to strong and convincing
Arguments. A Habit of conceiving
clearly, and reasoning strongly, is not
to be attained by a set of logical Precepts, a Happiness of Constitution,
or a Brightness of Genius: Such a
Habit must be form'd and established
by Custom and Practice, which therefore

fore we should begin in the early Part of our Life.

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RULE II. Endeavour to enlarge your general Acquaintance with Things, in order to furnish yourself with Plenty of Topics, or Middle Terms, to make use of in your Sollogisms; and diligently search into and consider the Nature, Properties, Circumstances and Relations of the particular Subject about which you are arguing or judging. The most extensive Survey possible of our whole Subject is the best Security against Inconsistencies; for it is arguing upon a partial View of Things that leads us into frequent Mistakes and Absurdities.

RULE III. While you are arguing upon any Subject, be fure to keep the precife Point of the Question always in View; and neither add to it, nor omit any Part of it. By thus keeping to the simple Matter of Enquiry, you will be secured from impertinent Answers and rash Determinations.

RULE IV. Having well confidered what is unknown in the Question, then consider bow much you know of it already, or of the Ideas and Terms whereof it is composed. By comparing the known and unknown Parts of a Question together, we find what Connection they have with each other; and the Ideas by which they are connected will furnish us with Arguments: But when we make this Comparison, we must take care not to be too hasty in determining, especially in Matters of Importance, lest our Conclusion should be Fancy, instead of real Truth.

RULB V. In chusing our Arguments, we should always take such as are surest, and carry with them the greatest Evidence. Remember that it is the Weight of Arguments, not their Number, which is chiefly to be regarded, especially when the Thing to

be proved admits of natural Certainty and Demonstration: But in Cases where we cannot go beyond Probability or moral Certainty, the Number of Arguments increases the Degree of Probability, and gives us a greater Affurance of the Truth of what is proposed.

Rule VI. If we are to prove any Conclusion we have made, we should do it (as far as possible) by Propositions that are still more plain and certain, at least more known and intelligible to the Person whom we are endeavouring to convince. The Reason of this is evident; for every one sees the Folly of attempting to explain one Obscurity by another, or to confirm what is doubtful by something equally, or more uncertain.

RULE VII. Let your Arguments tend to enlighten the Understanding, as well as to captivate the Jugdment. That Th Aff

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deter tion, Argu That is, let them not only force the Assent, but also illustrate the Point in Question, so as to make it better understood.

Rule VIII. Take care to distinguish between an Explication and an Argument, between a mere Illustration and a solid Proof. Proper Similies and Allusions are often useful in explaining and giving Light to a Subject, but we should not mistake them for conclusive

Arguments.

RULE IX. In all our Reasonings let us pursue Truth with Sincerity, and follow it wheresoever it leads. In our Search after true Knowledge we should not be diverted or influenced by any Passion or Prejudice; nor should we determine on either Side of a Question, till we have well weigh'd the Arguments and Objections on both.

PART

PART IV.

Of Disposition, or Method.

Q. WHAT is meant by Dispo-SITION, the Fourth Part

of Logic?

A. Disposition, or the Art of Method, is the Ranging a Variety of Thoughts on any Subject in such an Order as is sittest to gain the clearest Knowledge of it, to retain it longest, and to explain it to others in the best Manner. Or, it is the Disposing our Thoughts in such Order as to be most easily conceived and remembered by ourselves and others.

Q. What Inconveniencies arise from

the Want of Method?

A. Without it, Confusion, Darkness, and Mistake will unavoidably attend our Thoughts and Discourses.

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CHAP. I.

Of the several Kinds of METHOD.

Q. How many Kinds of Method

A. Method is distinguished into two general Kinds, viz. Natural and Arbitrary.

Q. What is Natural Method?

A. It is that which observes the Order of Nature, and proceeds in fuch a Manner, as that the Knowledge of the Things which follow depends in 2 great Measure on the Things which go

Q. Is not this Method twofold?

A. Yes, it is either Analytic or Synthetic.

Q What is the Analytic Method? A. The A. The Analytic Method, or Method of Resolution, is what we generally use in our Enquiries after Truth. It begins with the whole Compound, and then leads us into a more perfect Knowledge of it, by resolving it into its first Principles or Parts, and shewing its Nature and Properties. Thus we are first acquainted with the whole Body of an Animal, and afterwards come to the Knowledge of its several Parts by Anatomy or Dissection.

Q. What is Synthetic Method?

A. The Synthetic Method, or Method of Composition, is that whereby Truth, when discovered, is usually taught or imparted to others. This begins with the Parts, and so leads on to the Knowledge of the Whole; it proceeds gradually from the most simple Principles, to that which is drawn from or compounded of them. Thus

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Thus having learnt the Letters of the Alphabet, we join them to make Syllables, of Syllables we compose Words, and of Words we make Sentences and Discourses.

Q. How do you farther explain the

Difference of these two Methods?

A. They differ from each other as a Way which leads up from a Valley to a Mountain differs from itself, when confidered as leading down from the Mountain to the Valley. The one is like tracing a Genealogy by descending from the Ancestors to the Posterity; the other like the contrary Method of afcending from the Posterity to the Ancestors. Thus the Difference between the Synthetic and Ana. lytic Method is plain and obvious; but as the Subjects of Knowledge are infinite, and the Ways of obtaining it almost infinitely various, the precise N 2

Distinctions between these two Methods cannot always be maintained; and in many Cales they are mixed together, and both employed in fearthing after and communicating Truth. Upon the Whole, neither of these Methods should be too scrupulously obferved, either in our Investigation of Truth, or the Communication of it to others: It is sufficient, if we so far keep to the Order of Nature, as to make the Knowledge of Things following depend on the Knowledge of those that go before. A mixed Method will oftentimes answer these Purpoles most effectually; and indeed all Method whatfoever must be regulated by a judicious View of, and Attention to, our chief End and Defign.

Q. What is meant by Arbitrary

Method?

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A. It is that which leaves the Order of Nature, and is not confined to any certain Forms, but accommodates itself to various Purpofes; whether it be to affift the Memory, to perfuade, delight, or amuse the Reader or Hearer. This Kind of Method is chiefly used by Orators and Poets, who fometimes omit Things essential to the Subject which they apprehend would be difpleasing, and run into beautiful Digressions or needless Circumstances, which have little Relation to the Point in Hand, but are adapted to allure and entertain the Mind. In a Word, they artfully invert the Order of Times and Actions, placing the first last, and the last first; and so manage it as to fet every thing in the most affecting Light, and captivate the Senses and Passions of Mankind.

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CHAP. II.

The Rules of METHOD.

Q. WHICH are the best Rules to be observed in Natural Method?

A. The most important Rules of true Method, whether Analytic or Syn-

thetic, are the following.

RULE I. Good Method should be safe and secure from Error. To this End our fundamental Propositions must be wellgrounded, our Arguments strong, and drawn up with so much Caution, as to prevent (if possible) all Objections.

RULE II. Our Method should be plain and easy, that so it may exhibit a clear and comprehensive View of the whole Design. In order to this we must begin with Things that are most known and obvious, and proceed

by gentle Steps to Things that are unknown and difficult; always endeavouring to express our Conceptions in a clear and easy Manner. We should not be over-hasty either in Learning or Teaching, not fond of crowding too many Thoughts into a little Compass, or of running into numerous Subdivisions.

RULE III. Our Method should be distinct, and free from any Mixture that might introduce Perplexity and Confusion. No Arguments must be used that are entirely foreign to the Subject; every Idea must be divided into its Parts, as far as is requisite to the present Design; every Argument must be ranged in its proper Class; and in the Partition of a Discourse we should take care that particular Heads do not interfere with the general, nor with each other.

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RULE IV. Good Method Should be full, so that nothing may be wanting that is necessary or proper. In explaining a Subject we should not skip over what is difficult or obscure; nor be deficient in enumerating its Parts or Properties. In illustrating a difficult Point we should not be sparing of Words, but rather diffusive; and in a Narrative we should omit no important Circumstance. By Fulness of Meshod, however, is not meant that every thing should be said that can be faid upon any Subject, but only what is necessary, or has a direct Tendency to the Defign in View.

RULE V. Our Method should be brief, (so far as is consistent with the foregoing Rule) and free from every thing superfluous and impersinent. To this End we must guard against a tedious Prolixity, avoid needless Repentitions, Explications where there is

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no Obscurity, Proofs and Resutations where the Case requires none, useless Formalities, and long or frequent Digressions. In short, there is a due Medium to be observed in our Method, so that our Brevity may not render us obscure, nor our Copious-

ness tedious and trifling,

RULE VI We must adapt our Method to the Subject in hand, to our present Design, and to the Age and Place we live in. All Subjects are not to be handled in the same Method; and if we treat the same Subject with different Views, we shall find it necessary to use different Methods. Some little Deserge must likewise be paid to the Custom of the Age, and to the Humour and Genius of our Readers or Hearers; though we must by no means suffer ourselves to be so far influenced thereby, as to neglect those Rules

Rules of Method which are absolutely necessary to find out Truth, or communicate it to others.

RULE VII. Good Method requires that the Parts of a Discourse should be well connected. In order to this, we must always keep our main Design in View, and let every Particular (as far as possible) have a visible Tendency towards it. The mutual Relation and Dependence of the several Parts of a Discourse should be so just and evident, that each may naturally lead on to the next, and be join'd to it by some proper and graceful Form of Transition.

We are now come to the End of our little Treatise of Logic, which we have endeavoured to render as complete as our narrow Limits would permit: But we think it will neither b

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be impertinent, nor unserviceable to the young Scholar, to add here (by way of Supplement) some short Account of the Academic and Socratic Methods of Disputation.

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ART OF LOGIC.

CHAP. I.

Of ACADEMIC or SCHOLASTIC DISPUTATION.

Q. WHAT do you mean by the Academic Method of Dispu-

A. I mean the Method in which Disputes are usually managed in Academies or Schools of Learning.

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Q. In what Manner is this done?

A. First of all the Tutor appoints a Question in some of the Sciences, to be debated amongst his Students; one of whom undertakes the affirmative or negative Side of the Question, and is to defend his Affertion or Negation, and to answer all Objections against it. Hence he is call'd the Respondent; and his Fellow Students, who are appointed to raise Objections and carry on the Dispute against him, are call'd the Opponents.

Before the Time appointed for this Exercise, the Respondent writes a Thesis, or short Discourse on the Question proposed, which he reads at the Beginning of the Dispute. In this Discourse he explains and fixes the Sense of the Terms of the Question, declares its true Intent and Meaning, and separates and distinguishes it from those with which it has been complicated.

cated, or to which it happens to be related. This done, he affirms or denies it, according to the Opinion of the Tutor, which is supposed to be the Truth.—In the second Part of this Discourse he produces his strongest Arguments in Defence of his own Side of the Question, and then leaves the other Students to object against it.

The Respondent having read over his Thesis, the youngest Student makes an Objection, which he draws up in the Form of a Syllogism. This Objection is repeated by the Respondent, who either denies one of the Premisses directly, or distinguishes upon some Expression in the Major or Minor, shewing in what Sense the Proposition may be true, but denying it to be true in the Sense which affects the Question in Dispute.

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The Opponent then proceeds by another Syllogism to vindicate the Proposition which the Respondent denied; and the Respondent again answers, either by denying or dittinguishing: And thus the Disputation is carried on by successive Syllogisms and Answers, till the Opponent has no more to say.

The first being silenced, the next Student proposes his Objection; then the third, fourth, fifth, and so each in his Turn according to Seniority, till it comes to the oldest Student, who is

the last Opponent.

During this Time the Tutor fits in a Chair as Prefident or Moderator, whose Business is to see that the Rules of Disputation and Decency are observed on both Sides, and to admonish those who are guilty of any Irregularity. He is also to explain, strengthen, or correct the Respondent's Answers

as he finds Occasion; and if the Respondent be at a Loss, he assists him by suggesting some Answer to his Opponent's Objection. But this is not done in publick Disputes, where the Disputants chuse there own Side of the Question; for in such Cases the Moderator neither favours the Respondent not Opponent, but only takes care that they observe the Laws of Disputation.

Q. Which are the Laws of Difputation?

A. The Laws to be observed by the Opponent are these which follow: 1. He must directly contradict the Respondent's Propsition, and not merely attempt to consute the Arguments by which it is supported. 2. He must contradict the Proposition as the Respondent has stated it, and not in any other Sense. 3. His Argument must be proposed in the Form of a Syllogism,

gism, agreeable to the Rules of Logic, and without any Fallacy whatsoever. 4. It is best for the Opponent to draw his Objections from the Nature of the Question itself; tho' it is also allowable for him to attack the Respondent by indirect Arguments. 5. If the Respondent denies any Proposition, the Opponent must directly defend it, by making it the Conclusion of his next Syllogism. 6. When the Respondent limits or distinguishes any Proposition, the Opponent must directly prove it in that very Sense wherein the Respondent denied it.

Q. Which are the Laws that oblige

the Respondent?

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A. They are these. 1. He must repeat the Opponent's Argument before he attempts to answer it. 2. A a Syllogism be faulty in its Form, he must shew where the Fault lies according to the Rules of Logic. 3. It the

the Matter of an Objection be faulty in any Part of it, he must grant what is true in it, and deny what is false. 4. If his Opponent's Argument does not directly affect his Proposition, he must expose its Weakness, by shewing it might be admitted without any Prejudice to his own Thefis. 5. If an bypothetical Proposition be false, he must deny the Consequence; if a disjunctive one, he must deny the Difjunction, &c. 6. After the Respondent has answer'd directly, he is sometimes permitted to answer indirectly; and also to shew how the Opponent's Argument may be retorted upon himfelf.

Q. Which are the Laws that oblige

both Respondent and Opponent?

A. These that follow. 1. Certain general Principles, relating to the Question, should first be agreed on by both the Disputants. 2. When the State

State of the Controversy is well known and determined, neither of them must alter it in the Course of the Disputation. 3. Neither of the Disputants should invade the Province of the other. 4. The one should not interrupt the other, but wait patiently till he has done speaking.

Q. What Advantages are to be gain'd by this Sort of Disputation?

A. It gives a proper Degree of Courage to those who are too modell and distrustful of their own Abilities, and procures a Freedom and Readiness of Speech. It makes a Student more expert in vindicating Truth and refuting Error; in warding off Objections, and discovering the subtil Arts of Sophisters. In a Word, it gives Vigour and Briskness to the Mind, makes the Thoughts active, sharpens, the Wit; and quickens all the Powers of Invention.

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Q. Are there no Inconveniencies arising from Scholastic Disputation?

A. Yes, some very great ones; for Experience thews, that by a Habit of disputing many young Students grow impudent, proud, unseasonably talkative, oblinate in maintaining their own Affertions, and ready to contradict almost every thing afferted by others. It is also plain that by this Sort of Exercises, wherein the same Persons are sometimes on the Side of Truth and sometimes against it, the Mind becomes infenfibly wavering and unsettled, and is in Danger of falling into a sceptical or doubting Humour. Add to this, that in Scholastic Disputations the Opponets being all warmly employed in finding Arguments against the Truth, if one of them happens to invent a plaufible Sophism, and manage it so as to puzzle the Re-Spondent, and perhaps the Moderator him. himself, he is tempted to suppose his Argument unanswerable, and so his Sentiments become engaged in favour of Error instead of Truth, which last is supposed to be maintained by the Respondent.

Q. Which are the best Means to

prevent these Inconveniences?

A, The Observation of the following Directions in Scholastic Disputes may be of some Service to prevent the ill Consequences that too often attend them. 1. Never dispute about Things not worth the knowing, but upon useful Subjects. 2. Dispute not about Matters beyond the Reach of human Capacity, or about Words without Ideas. 3. Let not obvious and known Truths be brought into Dispute, merely to try the Skill of the Disputants. 4. To find out Truth should be the End of Disputation, not a Desire of Glory or Triumph over

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an Adversary. 5. Let not the Reof his Opponent's Objections; nor let the Opponent study to darken and confound the Answers of the Respondent. 6. To this End let both of them express their Thoughts as clearly and distinctly as possible, and be as brief as is confistent with Perspicuity. They ought not to indulge Ridicule, nor use Jests or Witticisms, especially if the Subject be serious or divine. 8. They should abstain from all Sarcasm, Reproach, personal Scandal, and infolent Language. 9. When the Truth evidently appears on either Side, let them readily yield to Conviction; but let not the Victor, (whether it be Respondent or Opponent) triumph or infult over his vanquish'd Adversary.

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CHAP. II.

Of the SOCRATIC Method of DISPU-

WHAT is meant by the Socration?

A. It is a Method which derives its Name from Socrates, an ancient Athenian Philosopher, by whom it was practifed, and by other Philosophers in his Time, long before Aristotle invented the Forms of Syllogism in Mood and Figure, now used in Scholastic Disputations.

Q. How is a Dispute carried on in

the Socratic Manner?

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A. By Way of Question and Anfiver, representing the Form of a Dialogue or common Conversation, wherein the Person who instructs seems to be the Enquirer, and seeks Information from him who is instructed. If the Person with whom we argue makes use of obscure or ambiguous Words, we must ask him to explain bis Meaning; for it often happens, that Men have accustomed themselves to some Words or Phrases which they do not perfectly understand; and then by a few modest Questions they will much better discover their Ignorance, than by a direct Opposition, which often raises the Passions, and shuts a Door against Conviction. When we have gone thus far, if the Person be a fin-cere Lover of Truth, he will presently acknowledge that he did not fufficiently understand the Matter, and then the Dispute is at an End: But if he is obstinate, and will obtrude his Words upon us without defining them, we ought to proceed no farther till he has fatisfied us what he means. We must press him with little Questions,

tions, as if we were dull of Appre-hension, and should be glad to understand him better: But if we can by no means prevail with him to speak plainly, it is Time to put an End to the Dispute; since it is evident he knows not what he would be at, or has only a Mind to wrangle. If at last we bring him to declare his Meaning clearly, we then proceed to afk him Questions upon the feveral Parts of the Doctrine he advances, and their Consequences; not as objecting against them, but for the fake of better Information. From these Questions, if proposed with Dexterity, it will easi-ly appear whether the Doctrine be absurd or not, and to make the Matter still clearer, it will be proper to use Examples and Similitudes: But if this be not fufficient to shew the Falfity of the Opinion, we must enquire of the Person on what Arguments

then pursue the same Conduct as we did in the first Part of the Dispute. Thus the Learner will be led into the Knowledge of Truth as it were by his own Invention; and being drawn by a Series of pertinent Questions to discern his Mistakes, he will more easily be induced to relinquish them, as he seems to have discovered them himself.

Q Can't you give me an Example or two of this Method of Disputation?

A. Yes; we will suppose two Perfons (M. and N.) disputing upon the Efficacy of the Divine Providence with respect to the Actions of Men.

M. You say that God has an efficacious Operation in the Sins of Men: Do

you mean that he makes Sin?

N. Far be it from me, for then God would be the Author of Sin.

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M. Do you mean that God forces
Men to commit Sin?

N. No, the Expression is too harsh; but God in an unknown and secret Manner so permits Sin, that it must necessarily be committed.

M. At first you used the Word Operation, now you use permit; pray do

they fignify the fame Thing?

N. They do not absolutely mean the same Thing; but they must be joined together, so that what God does should be call'd an efficacious Permission; for God neither makes Sin, nor does he simply permit it.

M. Then you mean that God per-

that Sin necessarily follows.

N. You have hit my Meaning.

M. Perhaps therefore God does in this Case what a Man does who cuts down a Dike, and lets the Sea overslow the Fields; for he does something in breaking the Dike, and permits fomething in letting the Water run through the Breach.

N. The Similitude expresses my

Opinion very exactly.

M. But pray who blames the Sea of the Dike for this Inundation? And, if I mislake not, Man is no more to be blamed when he commits Sin_(according to your Doctrine) than the Sea or the Dike.

N. You do not observe the vast Difference there is between the Things themselves: Men are endued with Understanding and Will, which the Dike and the Water have not; and therefore that is a Crime in Man, which is not so in the Sea and the Dike.

M. But I desire to know, whether that which God dees or permits has such an Efficacy, that Men can no more not fin in Consequence of it, than the Water can refrain from flow-

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ing thro' the Breach which affords it a free Passage?

N. That is what I mean.

M. Therefore, according to you, there is the same Relation between God and the Sins of Men, as there is between the Man who made a Breach in the Dike, and the Inundation which followed it.

N. There is, as to the Event, for

both are equally necessary.

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M. Then, according to our common Way of speaking, the Action of both may be expressed in the same Manner: That is, as the Man who broke down the Dyke is properly said to be the Cause of the Damage done by the Inundation, because he did that which necessarily produced it; so God (according to your Doctrine) is the Author of Sin, because he has put Man under a Necessary of sinning.

N. I cannot withfland the Force of your Reasoning; I am now thoroughly sensible of the absurd Consequences of my Opinion.

To make the Socratic Way of disputing still better understood, let us consider another Example. Suppose M. would lead N. into the Belief of a source State of Rewards and Punishments, it might be done in the following easy Manner of Reasoning.

M. Did God make the World?

N. Certainly he did.

M. Does God govern the World?

N. As he made it, 'tis reasonable to suppose he governs it.

M. Is not God a good and righteous

Governor?

N. Doubtless he is.

M. What is the true Idea of a good and righteous Governor?

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N. That he punishes the Wicked, and . rewards the Good.

M. But are the Wicked always pu-

nished in this Life?

N. No, every one's Observation tells him the contrary; for the worst of Men are oftentimes advanced to Riches and Honour, and have all the external Comforts that the World affords.

M. Are the Good always rewarded

in this Life ?

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N. No certainly, for Poverty, Perfecution, and various Kinds of Affliction, are often the Lot of the most virtuous Men.

M. How then does it appear that

God is good and righteous?

N. I confess there is but little Appearance of it in the present State of Things.

M. Will there not be a Time then when the Scene of Things will be

changed

changed, and God will make his Goodness and Righteousness in the Government of Mankind appear?

N. Undoubtedly fuch a Time will

come.

M. But if this be not done before Death, how can it be done at all?

N. No other Way that I can think of, but by supposing Man to have some Existence after this Life.

M. Then you are convinced that there must be a State of Rewards and Punishments beyond the Grave?

N. Yes, I am thoroughly persuaded of it; since the Goodness and Righteousness of God, as Governor of the World, cannot be made appear without it.

This Method of Reasoning, though it has been long neglected, is certainly a natural and pleasing Manner of Instruction, and is much more agreeable th

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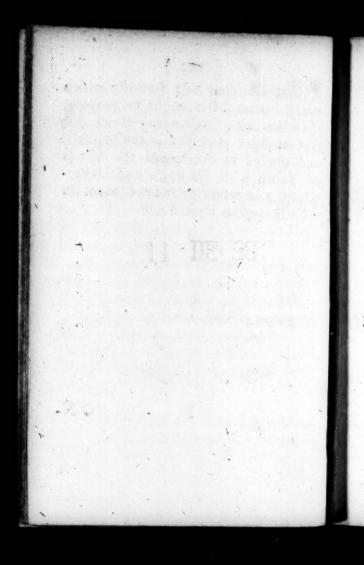
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to that Candour and Sincerity which every honest Man ought to propose, than the Art of Wrangting which for several Ages prevailed in the Schools, and tended to overspread the Minds of Youth with Darkness and Uncertainty, and retard or mislead them in their Enquiries after Truth.

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ONTOLOGY:

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Science of Being in general;

With its Affections.

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ONTOLOGY,

OR

METAPHYSICS.

CHAP. I.

Of Being and Nor-Being, and of the Modes or Affections of Being in general.

Q. WHAT is ONTOLOGY?

A. It is a Science which considers Being in general, its various Modes or Affections, and its several Kinds or Divisions.

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Q. In

Q. In what Sense do you use the Word Being?

A. So as to include not only whatfoever is, but whatfoever can be-

Q. What is meant by Not-being?

A. If we confider it as excluding all Substances and Modes whatsoever, it is then Nibility or mere Nothing: But as it excludes particular Modes or Manners of Being, it may be confidered either as a Negation, such is Deafness in a Stone; or as a Privation, such is Deafness in a Man .- N. B. Pure Nothing, consider'd in itself, has neither Being nor Affections, and yet it is evident we can frame some Sort of Notion or Idea of it, fince we can reason and discourse about it: But our Imagination now and then leads us to mistake Nothing for Something, as in the Case of Darkness or Shadows, which are only the Absence of Light; and

and on the other hand we fometimes mistake Something for Nothing, as when we say a Room has Nothing in it, though it be full of Light and Air.

Q. What is meant by the Affections

of Being?

A. All the Properties, Powers, Accidents, Relations, Qualities, Adjuncts, Conditions, Circumstances, or Considerations of Being whatsoever; that is, all that vast Variety of Modes which belong to Things, either as they are in themselves, or as they are related to other Things, or as they are represented by our Conceptions and Ideas.

Q. As the Affections of Being are fo various, how are they best distinguished?

A. The most general and extensive Distribution of them is into absolute

and relative.

P 4 Q. What

Q. What do you understand by ab-

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A. Those which belong to every Being consider'd in itself; and these are Nature or Essence, and Existence; Duration and Unity; Power and Ast.

Q. What are relative Affections?

in which different Beings stand to each other, or to some Part or Property of themselves: And these Relations may be subdivided into real and mental.

Q. Which are real Relations?

A. Those which are sounded in the very Constitution of Things, and always subsist whether we think of them or not. Such are the Relations between a Whole and its Parts, Cause and Effect, and several others; of which more hereaster.

Q. Which are mental Relations?

A. Such as do not arise from the Nature of Things themselves, but from from the Manner in which the Mind thinks of them, and refers them to one another. Of this Kind are our most abstracted Notions, Signs, Words, &c. as will be explain'd by and by.

CHAP. II.

Of Essence, or NATURE.

Q. WHAT is meant by that absolute Affection of Being called

Nature or Effence?

A. It consists in a Union of all those Things, whether Substances, or Modes and Properties, which are necessary to make a Being what it is. Thus it is the Nature or Essence of a Grove to be a Spot of Ground thick set with Trees; and of a Triangle to have

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three Lines so join'd as to make three

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Q. Is the Essence of a Being so immutable, as that the least Alteration in it makes that Being something else than it was before?

A. The Essences of mathematical Beings (which are only a Kind of ab. ftract Ideas) are immutable; for it is plain that the least Alteration in a Triangle, a Square, or a Circle, would make it lose its Nature, and cease to be that Figure. But the Essences of natural Beings, as well as artificial, are not so unchangeable; for a Tree may still remain a Tree, though some of its Branches be lopp'd off; and a Door is still a Door, whether it be painted blue or green. We may observe, however, that if the Alteration be very great, it will be fometimes hard to tay whether the Thing retains the same Essence, so as to deserve the fame fame Name; for you may gradually lessen the Brims of a Hat, or cut it into such a Shape, till you will scarce know whether to call it a Hat or a Cap.

Q. Wherein does the Essence of every particular Kind of Body consist?

A. In Matter and Form.

Q. What is Matter?

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A. It is that folid extended Subflance of which Bodies are made, which feems to be uniform and the same in all?

Q. What is Form?

A. The Word includes all those peculiar Qualities, both real and sensible, which make any particular Body be what it is, and distinguish it from all other Bodies.

Q. What is the Difference between real and fenfible Qualities?

A. The

A The Shape, Size, Situation, Motion and Rest of Bodies are called their real or primary Qualities, because they do and would belong to Bodies, whether there were any sensible Being to observe them or no: And from the different Combinations and Dispositions of these primary Qualities arise the Colour, Taste, Smell, Hardness, Cold, Heat, &c. of Bodies, which are call'd secondary or sensible Qualities, as being Ideas or Modes, which we attribute to Things merely as they affect our Senses.

Q. Is there no Distinction made as to the Matter of Bodies?

A. Yes, the Matter of a Body is faid to be either proxime or remote. Thus the proxime Matter of a Book is Paper, Ink, and Covers; but the remote Matter is that whereof the Paper, Ink, and Covers are made.

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Q. Is the Term Nature always taken

in the same Sense as Effence?

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A. No; by Nature is sometimes meant the eternal and unchangeable Reason of Things: Thus it is necesfary in the Nature of Things, that three and three should make fix, and that a Part should be less than the Whole. Sometimes this Term fignifies the constant Course and Order of second Causes, and the Laws of Matter and Motion, which God the first Cause has established: And Things which go in this Course are said to be according to Nature; as the Production of Grapes by a Vine, the Succession of Day and Night, &c. But when Things deviate from this Course, they are said to be beside Nature, as Monsters; or above Nature, as Miracles; or contrary to Nature, as when the Stock of an Apple-Tree brings forth Pears by virtue of a Graft taken from a Pear-Tree.

CHAP.

CHAP.

Of EXISTENCE.

Q. TTOU mentioned Existence as an absolute Affection of Being: Pray how is it distinguished from Esence?

A. As the actual Being of a Thing is distinguished from its mere Nature confidered as possible. What really is in Being has both Essence and Existence; what possibly may be can be faid to have an Effence only.

Q. In what Sense is a Being faid

to be possible?

A. When the Ideas we form of fuch a supposed Being have no Inconsistency, but may be actually united, as a Mountain of Gold, or a River of Oil: But when the Ideas are

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inconsistent with each other, and cannot be united, such a Being is called an Impossible; as cold Fire, or silent Thunder.

Q. How are Impossibles distin-

guished?

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A. Into four Kinds, viz. 1. Some Things are metaphyfically or absolutely impossible, in the abstracted Reason and Nature of Things; as a Square Circle, a green Sound, a thinking Sign-Post, or a Bushel of Souls. 2. Others are phyfically or naturally impossible, that is, according to the present Laws of Nature; as a Day in our Latitude thirty Hours long, or three Ectipfes of the Sun in a Month. 3. Others are morally impossible, that is, improbable in the highest Degree; as that a Man should throw the Same Number with three Dice a bundred times successively, or that an Atheift should be firitily wir -

wirtuous. 4. Some Things are conditionally impossible, that is, made so by a certain Condition; as that a Tree should bear Fruit supposing it has no Bloom.

Q. Is there any farther Distinction

of Existence?

A. Yes, Existence is said to be either necessary or contingent, dependent or independent.

Q. What is the Meaning of these

Terms?

A. Things which are because they must be, have a necessary Existence; but those which might not have been, and may cease to be, have only a contingent Existence. A necessary Being is without a Cause, and independent; but a contingent Being is the Effect of a Cause, and dependent thereon.

Q. To what Beings do these Ideas

belong ?

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Independence and Necessity of Existence, taken in the highest Sense, belong to God alone, whole Existence is absolutely necessary, and without any pre-existent Ca Se: But a Sort of conditional Necessity may be ascribed to Creatures; that is, fuch a Creature must exist if the Causes are put which will necessarily produce it; as, if a Hen's Egg be batched it will produce a Chicken .- Here it may be proper to observe, that Beings are said to be necessary or contingent, not only with regard to their Existence, but to the Manner of it also. God is necessary in this Respect, as well as in the other, and therefore he is unchangeable: But as to Creatures, their Manner of Existence is contingent, and therefore they are changeable Things.

Q. What Distinctions are made of

Neceffity?

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A. It is diftinguish'd into natural, logical, and moral. By natural Neceffity Water congeals with Cold, and Ice melts with Heat. By logical Ne. cessity a Conclusion flows from the Premisses of a Syllogism. By moral Necessity Virtue will be finally rewarded, and Vice punished; and it is morally necessary that intelligent Creatures should worship their Creator, -It is to be observed, that both Ne. cessity and Contingence are frequently applied to Events in the Natural World; but those in the Moral World are usually called contingent. being the voluntary Actions of intelligent Beings.

Q. How are Necessity and Contingence applied to the Events you speak

of ?

A. Events in the natural World are faid to be necessary when they are derived from the Connection of second

cond Causes, and those Laws of Motion which God established at the Creation: But they are said to be contingent, or to arise from Chance, when they come unexpectedly, and are different from what is usual in the Course of Nature.

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CHAP. IV.

Of DURATION.

Q. WHAT is meant by that abfolute Affection of Being which is call'd Duration?

A. Nothing more than a Continuance in Being; and this is divided into permanent and successive.

Q. What is permanent Duration?
A. This State of Being (strictly speaking) belongs to God alone, and implies not only his Continuance in Existence, but an universal and end-

less Possession of the same unchangeable Powers and Properties.

Q. What is Successive Duration?

A. This belongs to Creatures, and implies the Continuance of the fame Being, though its Modes, Powers, Properties, and Actions are successively changing.

Q. How can there be any Duration

without Succession?

A. We cannot easily conceive how there should; but this Sort of Duration is God's Eternity, which has some Things in it above our narrow Conceptions.—It is successive Duration only that can properly be divided into Past, Present, and Future. The Present, in a strict Sense, is only the single Moment that now exists, and divides the Years or Ages past from those which are to come.

Q. Whence have Creatures this Affection of Duration?

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A. As Creation gives them Existence, fo Conservation is faid to give them Duration, i. e. a Continuance in Being. The latter is an Exercise of God's Almighty Power, as well as the former; and how far they differ, or whether they differ at all, is not our Business to enquire.

CHAP. V.

Of UNITY and UNION.

Q. WHAT is the Meaning of Unity, another absolute Af-

fection of Being?

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A. Unity is that whereby any thing flands as it were alone in our Conceptions, and divided from every thing else: And this Unity is either simple or compound; for we fay one Grove, as well as one Tree, and one Army, as well as one Soldier.

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Q What is Union?

A. It is that whereby two or more Things either really become one, or are consider'd as such: And therefore Union may be distinguished into real and mental.

Q. This is plain; but is not real Union likewise distinguished into several Kinds?

A. Yes; it is either natural and necessary, as between a Tree and its Root; or accidental, as when two Nuts grow together; or artificial, as a Mixture of Wine and Water.—
Again, real Union is consider'd as corporeal, spiritual, or human. By the first is meant the Union of Bodies, which is made by blending, compounding sastening them together, or any other Means; as Drugs in a compound Medicine, a Bundle of Sticks, &c. Spiritual Union, or that of Minds, is either intellectual, by mutual Consciousses

ousness of each other's Thoughts, or a Likeness of Sentiments; or it is moral, by mutual Love or Friendship; or supernatural, as it may relate to God and Religion. Human Union is that of an animal Body with a Spirit to constitute a Man; but how this Union is effected is entirely unknown to us, and must be resolved into the Appointment of the All wise Creator.

Q. What is mental Union?

A. It is when several Things, which are really distinct and different, are considered as one. Thus a vast Variety of Thoughts as well as Words may be considered as making up one Book or Treatise.

CHAP. VI.

Of Act and Power.

Q. YOU mention'd two other abfolute Affections of Being, call'd As and Power; what is the

Meaning of them?

A. Act and Power may be distinguished three Ways. 1. As actual Being is distinguished from potential, or a Power to be: Thus a House already built differs from a House which it is merely possible may be built one time or other. 2. As actual Doing or Action is distinguished from a Power to do: So the putting a Body in Motion differs from the Power of moving it. 3. As actual Suffering or Passion is distinguished from a Power to suffer: So the actual Motion of a Body is different from its Mobility or Power to be moved.

Q In what Sense do you here speak

of Action and Paffion?

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A. By Action I mean the Exercise of a Power to do, and by Passion the Exercise of a Power to suffer: But let it be observed, that the Words Passion and Suffering are he seed to signify merely the receiving the Act of the Agent or Doer by the Patient or Sufferer. When a Horse rubs himself against a Tree, the Horse is the Agent, and the Tree is the Patient; or when a Father loves his Son, the Father is the Agent, and the Son the Patient, in this philosophical Sense of the Words.

Q Which are the most usual and

proper Distinctions of Action?

A Action is diffinguished into immanent or transfent, natural or supernatural, voluntary or accidental, necessary or free.

[210]

Q. What is the Meaning of these Terms?

A. An immanent Action is that which continues in the Agent, being not directed to any other Object; as when a Man loves himself. Tranfient Action passes from the Agent to some other Object or Patient; as when a Man loves his Friend, or whips his Horse. Action is natural, as when Fire melts Butter; or fupernatural, as when the Prophet Elisha made Iron swim. When a Man drives a Nail with a Hammer it is a voluntary Action; but if he should miss the Nail and hit his Fingers, the Action would be accidental. Laftly, Action is necessary, as the Sun's enlightening the Earth; or free, as a Man can 'run or walk, fit or stand, dine at Twelve or Two, or not dine at all, just as he pleases.

Q. Are

[211]

Q. Are all human Actions free?

A. The Will is always free in chung what it likes, or refunng what it dislikes; and so when a Man wills and purfues any fupposed Pleafure or Happiness, he is said to do this freely, though indeed the Action is necessary, and he cannot do otherwise: Hence it appears, that Necesfity is not universally and utterly inconsistent with Freedom and Liberty. But sometimes the Liberty of the Will is a Liberty of chusing or refufing indifferently, a Freedom or Power to chuie or not to chuse among two or more Things proposed: So a Man may chuse to walk abroad or slay at home, to speak or to be filent. This is Liberty in the most proper Sense, and is absolutely inconsistent with Neceffity.

Q. Is there no Distinction of Powers,

as well as of Allions?

A. Yes,

A. Yes; they are distinguish'd into feveral Kinds and Degrees. First, Disposition is reckon'd an impersect Power of performing any thing, and the very lowest Degree: The next is mere Ability; and then a Habit of performing it with Ease and Certainty. -Some Powers are corporeal, as that of the Sun to warm the Earth; fome Spiritual, as meditating, reasoning; fome animal Powers, as eating, waking, fleeping; fome buman, arifing from the Union of Mind and Body, as Sensation and Imagination; some vegitative, as Nourishment and Growth. - Powers are also distinguish'd into natural, as that in a Man of forming a Voice; acquired, as Music; and infused, as the Power which the Apostles had of speaking many Languages.

Q. Are not Powers frequently call'd

by other Names

A. Yes;

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A. Yes; those acquired by Exercise are properly call'd Habits: The Powers of natural Action in Animals, and artificial in Men, as Walking, Dancing, Ec. are call'd Faculties; and in all inanimate Being they are term'd Principles. The Powers of moral Action are also call'd Principles or Habits; as Justice, Temperance, Ec.

CHAP. VII.

Of RELATIVE AFFECTIONS, or RE-LATIONS.

Q. WHAT have you farther to fay concerning relative Af-

A. It has been observ'd before, that they arise from the Respect or Relation that one Thing bears to another, or to some Part or Property

of itself; and the same Relation is not consin'd to two Things, but may belong to many. Greatness and Smallness, Paternity, and Sonship, are relative Ideas.

Q. Is there no Distinction made between the Terms of a Relation?

A. Yes; the Subject of a Relation, or the Thing spoken of, is call'd the Relate; and the other Term, to which the Subject relates, is call'd the Correlate. So if we speak of a Hushand, he is the Supject or Relate, and the Wife is the Correlate; but if we are first speaking of the Wife, then she is the Relate or Subject, and the Hushand is the Correlate.

Q. How many Kinds of Relations

are there?

A. They have been already divided into real and mental, but there are some other Distinctions which it may be proper to mention. 1. They

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are natural; as the Relation between Father and Children, Root and Branches. 2. Moral, which are the Relations that the Actions of Men bear to a Law or Rule, either human or divine; and thus they are good or evil, lawful or unlawful. 3. Voluntary, or freely chosen; as between Friends, or Husband and Wife. 4. Accidental, as between Persons happening to become Neighbours, or between Trees growing in the same Grove. 5. Reciprocal, or synonymous, that is, of the same Name; as Cousins, Partners, Schoolfellows, &c. 6. Notreciprocal, or beteronymous, that is, of a different Name; as Master and Scholar, Father and Son, King and Subjects.

Q. Which are the real Relations

you propose to explain?

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A. They are Truth and Goodness, Whole and Part, Cause and Effect,

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Subject and Adjunct, Time and Place, Agreement and Difference, Number and Order; all which, as here enumerated, shall be briefly consider'd.

CHAP. VIII.

Of TRUTH and GOODNESS.

Q. WHAT is meant by Truth?

A. The Word is used in various Senses; as, 1. A Being is said to be metaphysically true, when it is perfectly conformable to the Divine Intellect or Idea, which is the grand Pattern of all created Beings. 2. A Thing may be said to be physically or naturally true; as, that is true Gold, which has all the Properties requisite to its Nature. 3. There is logical Truth, as when Propositions are confor-

formable to the Things intended; and this is the most usual Meaning of the Word, the Propositions themselves being frequently call'd Truths; of which some are probable, some improbable; some necessary, others contingent, &c. 4. There is also ethical or moral Truths; which is when our Words and Actions agree with our Thoughts, and our Deeds with our Words: The first is call'd Sincerity, which is the Truth of the Heart; the latter Veracity, which is the Truth of the Lips.

Q. What is meant by Goodness?

A. This is likewise distinguished into, 1. Metaphysical, as when Things are agreeable to the Will of God, and answer his Design: So he surveyed the Works of his Creation, and saw that they were good. 2. Physical or natural, when Things come up to a supposed Standard, or are capable.

of answering their natural End; so Air is good, when pure and fit for Breathing: And in this Sense artificial Things are also call'd good; as, a good Seword, a good House, a good Watch, &c. 3. Besides these there is Moral Good, which in general is the Conformity of our Thoughts, Words, and Actions to the Reason of Things, or the Law of God. When this regards our Neighbours or ourselves, it is call'd Virtue; but when it has a Regard to God, it is call'd Religion.

Q. Is natural Good never used in any other Sense than what you have

mentioned?

A. Yes, it is sometimes used (with respect to sensible or rational Beings only) to signify whatever is pleasant, or which tends to procure Pleasure or Happiness.

Q. What do Ontologists call the

Union of Truth and Goodness ?

A. They

A. They call it Per calion; fo that when they are united in any Being, that Being is faid to be perfect: By which is meant, that it contains all its essential Parts and Properties without Blemish, comes up to its Standard, and is capable of answering all the Ends for which Nature has design'd it. Where any of these are wanting in any Degree, the Being is call'd impersect.

Q. Is not the Word Perfection used

in different Senses?

A. Yes; absolute Perfection belongs to God alone. A Being may be call'd perfect in its own Kind, as a compleat Circle or Triangle; or comparatively, as a Picture, which so perfectly resembles the Original that no Unlikeness can be discover'd.—Again, a Being is perfect either as to Parts, or to Degrees: so a Colt is a perfect Horse with respect to his R 2 Parts,

Parts, but his Degrees of Growth, Strength, and Swiftness are imperfect. Or a Thing may be perfect as to Quantity and Measure, but imperfect in other Respects; so a Horse may be of full-grown Stature, but defective with regard to Beauty, Swiftness, or other Powers and Qualities .- Laftly, a Thing may be perfect with respect to Effentials, though not to Circumflantials also; as a Garden just laid out and planted may have all the ef-Sential Parts and Properties of a Garden, though it have not the circumfantial Perfection of Summer-Houses, Green-Houses, Water-Works, &c .-Sometimes the Word perfect is used for excellent; as when we fay Men are more perfect than Brutes, and Spirits more perfect than Bodies.

CHAP. IX.

Of the WHOLE and PARTS.

Q. WHAT is the Meaning of the Words Whole and Part?

A. A Being is called a Whole, when we consider it as made up of several Parts properly united: So that Parts are Beings, which join'd together in a proper Manner constitute the Whole.

Q. Into how many Kinds is Whole

distinguish'd?

A. Into four, viz. formal or metaphysical, essential or physical, integral or mathematical, and universal or logical.

Q. What is a formal or Metaphyfical

Whole?

A. It is the Definition of a Thing; which consists of two Parts, the Genus and the Difference, that is, the general and the special Nature of the Thing defined.

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Q. What

Q. What is an effential or physical Whole?

A. It is applied to natural Beings, whose Essence is supposed to consist in Matter and Form. It is likewise usually made to signify the two effential Paris of Man, viz. Body and Soul. But in a larger Sense it may include the Substance of a Thing, with all its essential Properties.

Q. What is an integral or mathema-

tical Whole?

A. An integral Whole is when the feveral Parts of it have a proper Existence of their own, and are really distinct from one another: Thus the Body of a Man is an integral Whole, confisting of Head, Limbs, and Trunk, all which have a real Existence in Nature, when separately consider'd. This is call'd a mathematical Whole, when applied to Number, Time, Dimension,

mension, or any thing that has proper Quantity.

Q. What is an universal or logical

Whole?

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A. It is a Genus including feveral Species, or a Species including feveral Individuals. Thus Animal is a Whole with respect to Man, Beast, Bird, and the other Species, which are its Parts; and Man is a Whole with respect to John, Thomas, William, and the rest of its Individuals.

Q. Can these several Kinds of Whole be applied to Spirits as well as to

Bodies ?

A. Yes, except the mathematical Kind. For Instance: A Spirit is defined a thinking Substance; Substance is the Genus, and thinking the Difference, which make up the metaphyfical Whole So Perception, Judgment, Reason, &c. are the effential Parts or Powers of a Spirit, which R 4

make it a physical or effential Whole. When we speak of a whole Host of Angels, this is a Whole of the integral Kind: And when we consider Spirit as a Genus, and human Souls and Angels as the Species, that is a logical or universal Whole.

Q. Is there any Distinction made of

Parts ?

A. Yes, they are distinguish'd into homogeneous, or of the same Kind; and heterogeneous, or of different Kinds. Of the first Sort are the Branches of a Tree; of the latter are the Parts of a Higher which consist of Stone, Wood, Iron, &c.

N. B. That which is a Whole in one Sense may be a Part in another; as a whole Page is a Part of a Book.—A Part of a Part is also a Part of the Whole; as a Line is a Part of a Book, because it is a Part of a Page.

CHAP. X.

Of CAUSES and EFFECTS.

Q. WHAT is the Meaning of Cause and Effect?

A. A Cause in general is a Principle diffinct from the Thing produced, and has some real Influence on its Existence. An Effect is that which is produced, done, or obtain'd by the Influence of some other Being, which is call'd the Cause.

Q. Is a Principle and a Cause the

fame Thing?

A Not always, though frequently, as will appear by confidering the different Kinds of Principles. 1. There are Principles of Effence or Existence; of which some are continent, as Herbs, Metals, and Minerals, are the Principles of Medicines, for they contain the Salts, Olls, Spirits, &c. extracted from

from them by the Chymists. Some are constituent, as the Stones, Timber. &c. of which a Building confifts: But this Sense of the Word Principle is not quite so proper as the former. Others are caufal, and fuch are all the Causes hereafter enumerated. 2. There are Principles of Knowledge, which are either internal, as Reason; or external, as Books: And these are either natural, as Sense; or Supernatural, as Inspiration. The Principles of Knowledge are also simple, as Ideas; or complex, as Propositions. 3. There are Principles of Operation; and these fometimes include the operating Beings themselves, as Painters, Warriors, &c. as well as their natural and moral Powers, and supernatural Influences. -But almost all Principles, except the continent and conflituent, may be rank'd amongst Causes of one Kind or other.

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Q. How many Kinds of Caufes are there?

A. The Distinctions of Causes are numerous; in general they may be divided as follows. 1. Into universal and particular: Thus the Sun, Earth, and Rain are the universal Causes of Plants, Herbs, and Flowers; but the Seeds of each are the particular Causes. 2. Into remote and proxime; as a Father is the proxime Cause of his Son, and a Grand-father the remote Cause. 3. Causes are call'd univocal when they produce Effects of the same Nature with themselves, as when a Rabbet produces a Rabbet; or equivocal, when the Effect is of a different Nature, as when a Man writes a Book, or makes a Pair of Shoes. 4. Causes are fole or folitary, as when a Pestilence destroys a City; or focial, as when it is plundered and burnt by an Army, confifting of Officers

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ficers and Soldiers. Total and partial is a Distinction near akin to the former. 5. Physical Causes are those which work by natural Instuence; and moral, those which work by Persuastion. 6. Causes are ordinary, when they work according to the usual Course of Nature; and extraordinary, when they are productive of Miracles.—Thus much for Causes in general.

Q. Which are the chief particular

Kinds of Causes?

A. Leaving out the common Diflinction of material and formal, (fince Matter and Form are not properly Causes) they may be distributed into four Kinds, viz. emanative, efficient, instructive, and suasive.

Q. What is meant by an emanative

Caute?

A. It is that from which the Effect flows without any Action to produce it; as Heat from Fire, a sweet Smell from from Flowers, or Water, from a Spring.

Q. What is an efficient Caufe ?

A It is that which produces the Effect by some Sort of active Power or natural Agency, and therefore most properly deserves the Name of a Cause; as when a Man rolls a great Stone down a Hill, and the Stone beats down a Wall, and the Wall kills a Cow or Horse that lay under it. Here are three dittinct Caufes, producing three diffinct Effects .- But efficient Causes are divided into various Kinds. 1. They are either first or fecond; and a Cause may be first abfolutely, which is applicable to God alone; or first in its own Kind, as a Gardener who plants Trees in his Garden is the first Cause of their Growth, and his under Agents are fecond Caufes. 2. They are diftinguished into principal, less principal, and in-

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instrumental. The Architect is the principal Cause of building a House; the less principal are Bricklayers, Carpenters, &c. and the instrumental are Trowels, Hammers, Saws, Axes, &c. 3. Efficient Causes are internal or external, which Words need no Expla-4. They may be exciting and disposing, as fine Fruit excites us to eat it; or compelling and confiraining, as when a Farrier gives a Horse a Drench. 5. A Cause is forced, as when a Man to avoid a mad Dog jumps into a Boat and oversets it; or free, as when a Man finks a Vessel by boring Holes in the Bottom of it. 6 Efficient Causes may be necessary, as when Fire burns a Child that falls into it; or contingent, as when a Perfon is kill'd by a Tile falling from a House. 7. A Cause may be accidental, as the Breaking a Window by throwing a Stone at a Bird; or defigning,

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figning, when the Mischief is done on purpose. 8. Causes may be procuring or confirming, preventing or removing: Thus Medicines confirm or procure Health, and prevent or remove Diseases. 9. Creative, conservative, dessiructive, and several other Distinctions of Causes need not be explain'd; their very Names describing them sufficiently.

Q. What is meant by an instructive

Caule?

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A. That which operates either by manifesting the Truth, or directing the Practice; and accordingly it may be call'd manifestative or directive. In the Manifestation of Truth this Cause is sometimes silent, as a Book, a Map, a Picture, &c. and sometimes wocal, as a Watchman tells us the Hour of the Night and a crowing Cock the Approach of the Morning. In the Direction of Practice this Cause is either

either a Rule teaching us how to act, or a Pattern for our Imitation; or it is a Guide, in which both Rule and Pattern feem to be included.

Q. What do you mean by a fuafive

Caule ?

A. It is fomething which works upon he Mind of a voluntary Agent, and inclines it to act, either by Entreaty or Authority, by Commands or Counfels, by Fear or Hope, or any other Motives. Suafive Causes are either personal or real: The personal are the Persuader, Encourager, Commander, &c. and the real are the End or Defign, the Object, Opportunity, &c. In a Word, any Thing that tends to affect and perfuade the Will may be properly call'd a funfive Cause. - Of this Sort of Causes the End or Design is reckoned one of the chief.

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Q. What Name is usually given to this last mentioned Cause?

A. It is commonly called the final Cause, by which is understood that for the Sake whereof any thing is done. For Instance, a Man labours hard for a Livelihood; in this Case his Labour is call'd the Means, so that the End is the Cause, and the Means the Effect. Victory and Peace are the final Causes of War.

Q. Are there not various Distinc-

tions of final Caufes?

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A. Yes, but many of them are fearce worth mentioning. The principal feems to be the Distinction of an End into ultimate and fubordinate: And an ultimate End is either absolutely so, as the Glory of God and our own Happiness should be the End of all our Actions; or it is ultimate in its order Kind, as Knowledge is the chief End of Reading. Subordinate Ends are such

fuch as tend to fomething farther; as Knowledge is fought in order to Practice.

Q. Are there no other Kinds of Cautes that are worth taking notice of?

A. Yes, there are three, viz. a deficient Cause, a permissive Cause, and a Condition; though these have obtain'd the Title of Causes for want of a fitter Name.

Q. What is meant by a deficient

A. When the Effect is in a great Measure owing to the Absence of something that would have prevented it, the Cause is call'd descient; so that it may be reckon'd a negative rather than a pessive Cause. Thus the Want of Rain is the descient Cause of the withering of the Grais, and of the Dustiness of the Roads; and a Leak is the descient Cause of a Ship's sink-

ing, or of Liquor's running out of a Vessel.

Q What is the Meaning of a per-

missive Cause?

A. A permissive Cause is that which removes Obstructions, and lets the proper Causes operate: And this Sort of Cause is either natural or moral. 1. A natural permissive Cause removes natural Impediments; fo the opening of the Window-Shutters is the Caufe of Light's entering a Room, and the letting loofe a Rope is the Cause of a Boat's running adrift. 2. A moral, permissive Cause removes moral Impediments or Prohibitions, and gives leave to act: Thus a Master is the permissive Cause of his Servant's going to a Horse-race, and so is a General of his Soldiers plundering a City. The taking off an Embargo is the permissive Cause of a Ship's failing SZ

failing out of Port, which had been thereby detained.

Q. Why is a Condition rank'd a-

mongst these Causes?

A. Because it is a Sort of Cause without which the Effect is not produced. It is generally applied to something which is requisite in order to the Effect, though it has no actual Influence in the Production of it. Thus Darkness is a Condition without which we cannot see the Stars; and a handsome Dress, and a Head uncover'd, is a Condition of being admitted into the King's Presence.

CHAP. XI.

Of Surject and Adjunct.

MAT is the Meaning of the next real Relations you mention'd, viz. Subject and Adjunct?

A. What

A. What has been faid in the first Part of Ligic (Chap. II.) where Sub-flances and Modes are treated of, may be confulted, but need not be here repeated. In this Place the Word Subject is rather confidered as having accidental Modes, than those which are essential; and these accidental Modes, or external Additions which adhere to the Subject, or Names and Denominations by which it its call'd, are what is here to be understood by Adjuncts.

Q. Which are the most considerable Adjungs of Actions or Appearances?

A. They are what we call Circumflances, which include Time, Place, Light, Darkness, Cloathing, the Situation of other Things or Persons, with all the concomitant, antecedent, or consequent Events.

Q. Do not Subject and Object fig-

nify the same Thing?

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A. When we consider Things as the Subjects of Occupation, Operation, Thought, or Discourse, they are then properly called Objects; as Leather is the Subject or Object on which a Shoemaker works, about which he is busied, or of which he thinks or discourses.

Q. Into what Kinds are Objects dif-

tinguish'd?

A. Into immediate, and remote; as the Words and Sentences of a Book are the immediate Object of a Student's Occupation; and the Art, Science, or Doctrine taught by that Book is the remote Object. They are also distinguish'd into common and proper; as the Size, Figure, and Motion of Bodies are common Objects of the two different Senses of Sight and Feeling; but Colours are proper to the Sight only, and Cold to the Feeling. Lastly, they are either material

terial or formal; as the Body of a Man is the material Object both of Physic and Anatomy, and Dissection and Healing are the formal Objects of those two Sciences.

CHAP. XII.

Of TIME and PLACE.

A. Time, as consider'd by Ontologists, is that Part of Duration which terminates the Interval of the Existence of Things; or it is what we call fuccessive Duration. It is divided into past, present, and future, as has been before mentioned, and is usually measured by the Motion of some Bodies, which is supposed to be most regular, uniform, and certain. These are either the heavenly Bodies, as the Sun, S 4 Moon.

Moon, and Stars, which are natural Measures of Time; or there are Hour-Glasses, Clocks, Watches, &c. which are artificial Measures. thus Time is divided into Years, Months, Weeks, Days, Hours, Minutes, &c. and as it commonly refers to fomething that measures it, it is esteemed a relative Affection.

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Q. What is meant by Place?

A. It is the Position or Situation of Bodies; and it is frequently diffinguish'd into absolute and relative.

Q. What is absolute Place?

A. It is that Part of the supposed infinite Void or Space which any Being fills up or possesses, consider'd fimply in itself.

Q. What is relative Place?
A. It is the Stuation that any Being has with respect to other Bodies round about it, which are supposed quiescent, or at Rest. - We usually conconceive of Things in this Manner:
But if Space (as fome Philosophers maintain) be only a Creature of Imagination, a mere Nothing, then all Place is properly relative, and if a Body existed alone it would have no Place at all.

Q. Is Place applied to Spirits as well as Rodies?

A. Ubiety is a Term used to signify the Place of Spirits; though it must be confess'd we have no clear Idea how they can have any proper Locality, Situation, Nearness, or Distance with respect to Bodies, without changing their very Nature, and making them quite other Beings than what they are. The Ubiety of a Spirit, therefore, can only properly refer to such a Part of the material World, of which it has a more evident Confciousness, and on which it has a Power of acting. When we say that

God, the infinite Spirit, is every where, we mean that he has an immediate and unlimited Consciousness of, and Agency upon all Things, and that his Knowledge and Power extend to all Possibles, as well as to all actual Beings; for he knows and he can do whatfoever can be known or done, When we say the Soul of Man is in his Body, we mean that it has a Conscioulnels of the Impressions made on the Body, and can excite particular Motions therein at Pleasure.-The Situation of Bodies in a certain Place is fometimes called a circumscriptive Presence; that of a Spirit by its Consciouness or Operation is term'd a defnitive or limited Presence; and the Omnipresence of Goo has been call'd his repletive Presence, because he fill Heaven and Earth, as the Scripture expresses it.

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CHAP. XIII.

Of AGREEMENT and DIFFERENCE.

Q. WHAT is meant by the Relations call'd Agreement and

Difference ?

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A. The Agreement and Difference of Things are Words which need no Explanation. They are found out by comparing one Thing with another, or the same Thing with itself at different Times and Places, or under different Circumstances or Considerations.

Q. Into what Kinds is Agreement

distinguished?

A. It is either real, that is, in Subflance; or modal, i. e. in Modes, Properties, or Accidents; or mental, that is such as is made only by our Conceptions.—An Agreement in Essence, Quantity, or Quality, is called internal; as that in Causes, Essects, Adjuncts,

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juncts, Names, or Circumstances, is call'd external. — Agreement is total and perfect, where there is no Difference at all; or partial, where there is a Difference in some Respect. An Agreement in Essence is called Sanemes, or Identity; but Agreement in Quality is properly call'd Likeness.

Q. Is not Agreement in Quantity.

fometimes call'd Samenef:?

A. Yes, but more properly Equality: So five Shillings are faid to be the same with a Crown, that is, equal to it, as containing the same Quantity of Silver. But sometimes an Agreement in Value arises from the Difference of Quality compensating the Defect of Quantity; as a Guinea in Gold is equal to one and twenty Shillings in Silver.—Where there is not an absolute Sameness in Quantity, the Agreement is called Proportion: So there is a Proportion between Six and Twelve. Twelve, for one is the Half of the other; and between three Fours and Twelve, for they are equal.

Q. In what farther Sense is the

Word Samen fs used?

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A. Two or more Things may be faid to have the Same general Esfence or Nature; as Beafts, Birds, and Fishes agree in this, that they are all Animals: Or they are faid to have the Same Special Nature; as Trouts and Oysters agree in that they are Fishes. But individual or numerical Sameness of Nature or Essence can be ascribed to one and the same Thing only; as a Man of a hundred Years of Age is the same Individual that he was when a Boy of fix, or a Youth of twenty. - There is another Distinction of Sameness into material and formal. Tobacco is the same Body materially. when it is dried and ground into Snuff, as when it is green and growing in the Field:

Field; but it is not formally the same.

Q. As Samenes bears different Senses, is not Likenes also distinguish'd into

several Kinds?

A. Yes; though Likeness or Similitude is chiefly applied to Qualities, yet it sometimes relates to Natures and Substances themselves; and it may be either total or partial.—Likeness is also in the same Kind, as one Egg is like another; or in a different Kind as a Picture may be like a Statue, or as Poesy resembles Painting; which last Sort of Likeness is sometimes call'd Analogy.

Q. Does not Analogy sometimes sig-

nify Proportion?

A. Yes; and we get the Idea of it by comparing two Quantities together, and confidering the Relation they bear to each other. In a Word, Proportion includes every Sort of A.

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greement in Quantity, (except individual Sameness) whether it be Time, Magnitude, or Number; and thence arise the Ideas of equal and unequal, greater and less, more or fewer, &c. Proportion may also be applied to any Qualities that admit of Degrees of Difference, as Whiteness, Sweetness, Cold, Heat, Good, Evil, &c.

Q. After thus explaining Agreement, what have you to fay of Difference?

A. Let it be observed, that Difference is not here taken in a logical Sense for the primary essential Mo de of any Being, which join'd to the Genus makes a Definition; but it includes every Distinction of one Thing from another.

Q. Is not Difference divided into

various Kinds?

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A. ee. A. Yes; it is either real, i. e. fubfiantial) as one Substance differs from another; or modal, when it relates to Modes.

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Modes, Properties, or Qualities; or mental, when it is only made by the Mind.— N. B. The Difference between Modes or Properties is fometimes call'd real, because it is founded in the Nature of Things; and so is opposed to mental, which is made only by our Conception.

Q. Are there no other Divisions of

Difference?

A. Yes; Difference or Disagreement will admit of much the same Divisions as belong to Agreement, which therefore needs not to be repeated.

Q But is not the Disagreement of Things expressed by various Names?

A. Yes, a Disagreement in Sub-stance or Essence is call'd Diversity; in Quality, it is Dissimilitude; and in Quantity it is opposed to Sameness, and is then peculiarly call'd Difference. As it stands opposed to Proportion, it is call'd Disproportion; that is, where there

there is no Proportion at all, as between Finite and Infinite; but the Word is frequently used in a more vulgar Sense, sometimes to signify any great Difference between two Quantities or Numbers, as one is disproportionate to ten Millions; and sometimes it means that one Part or adjunct of a Thing is too large or too small for the others; as a Man's Mouth or Nose may be disproportionate to his Face.—
The chief or highest Kind of Disagreement is call'd Opposition, and there are reckon'd five Sorts of Opposites.

Q. Which are the Names of the

Kinds of Opposites?

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A. I. Some are call'd Disparates, as Red, Blue, Yellow, &c. but these seem to be improperly reckon'd Opposites, since they are only different Species under the same Genus. 2. Others are relative Opposites, as Master

and Servant; but neither can all Relatives be properly call'd Opposites, as two Friends cannot who agree in their Humours and Sentiments. 3. Contraries are a proper Kind of Opposites, as hot and cold, white and black.

4. So are privative Opposites, as Sight and Blindness. 5. The last Kind are negative Opposites, or Contradictories; as Honour and Dishonour, Perfection and Impersection.

N. B. Among Contradictories some are express, and others implied; as a square Circle is an express Contradiction, but a religious Villain is only an implicitione, meaning a Person who is religious in Words, but the reverse in Practice.—Observe also, that Contraries are called mediate when there is some middle Quality or Medium which partakes of both the Extremes; as sukewarm between bot and cold: But where there is no such Medium they

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are term'd immediate, as living and dead.

CHAP. XIV.

Of NUMBER and ORDER.

Q. WHAT is the Meaning of Number and Order?

A. Number is a Manner of Conception, whereby feveral distinct and separate Things are reckon'd together, and considered as more or fewer.

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Q. Is not an Unit or One a Number?

A It is rather Part of a Number; for Number is made up of many Units put together; and therefore Number is a real Relative Affection of Being, as it plainly denotes a Relation between two or more Beings or Ideas.—Number is call'd diferete Quantity, because its Parts are distinct;

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as Magnitude is call'd continued Quan-

Q. What is meant by Order?

A. Our Idea of Order arises from confidering one Thing as being before, together with, or after another; according to which it is said to be prior, simultaneous, or posserior.

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Q. Into how many Kinds is Order

diftinguish'd?

A. Into five, viz. 1. The Order of Nature, as a Father is before his Son. 2. Of Time, as the Spring is before the Summer. 3. Of Place, as the Horse is before the Cart. 4. Of Dignity, as a Duke is before an Earl. 5. Of Knowledge, as we learn Letters before Syllables, and Syllables before Words.

Note, Things are faid to be together in Time, either when they begin together, as Fire and Heat; or when they co-exist with each other during some

fome Part of their Life, Time, or Being; as Socrates and Plato are faid to be Cotemporaries, though the former was born many Years before the latter.

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CHAP. XV.

Of MENTAL RELATIONS.

Q. OU have now gone through the real Relations of Being; what have you to fay concerning those that are mental?

A. It has been already observ'd, that mental Relations have no Foundation in the Nature of Things themselves, but arise merely from our Manner of conceiving them. These Relations therefore may be known by this Consideration, that if there were no intelligent Beings to conceive of R 3 them.

them, such Relations could never have existed.

Q. Which are the chief Kinds of mental Relations?

A. They are pure abstracted Notions, Signs, Words, Terms of Art, and external Denominations.

Q. What do you mean by pure ab.

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Aracted Notions?

A. They are what Ontologists call fecond Notions, fecond Intentions, mere Creatures of the Mind: But observe, it is not every Degree of Abstraction that makes a mental Relation. If we abstract the common Idea of a Man or Humanity from the particular Ideas that distinguish Thomas and Francis, this is an abstract Idea; though it is not a mere mental Relation, because it is Part of the real and absolute Idea of Thomas or Francis: But if we abstract this common Idea of Humanity yet farther, by considering it as a special

cial Nature agreeing to several Individuals, and so call it a Species, this is a mental Relation; and so is the abstract Idea of Animal call'd a Genus. These and the like Ideas are form'd by a second Abstraction, and may therefore be call'd pure abstracted Notions; which, having no Reality or Existence in Things themselves, are properly term'd mere mental Relations.

Q. What is meant by Signs?

A. A Sign is that which represents to the Mind something besides itself, which is call d the Thing signified.

Q. Are there not various Kinds of

Signs ?

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A. Yes, the chief of which are the following. 1. Signs are natural, as a Beard is of Manhood: or inflituted, as Baptism of washing away Sin, or as a Constable's Staff is a Sign of his Office. 2. Some are mere Tokens or Pledger, which do not at all repre-

fent the Thing fignified, as the Rainbow is a Token to affore us that the Earth shall not be drowned again. 3. Signs are antecedent, as the gathering of Clouds is of approaching Rain; or concomitant, as Shivering is of an Ague; or consequent, as a Funeral is of Death. 4. Another Distinction of Signs near akin to the former is into prognostic, as a Hiccup with an intermitting Pulse are Prognostics of Death; memorial, as a Funeral Ring is of a Friend deceased; and commonstrative, as a Tomb is of a Person buried there. 5. Signs are fometimes necessary and certain, as the Morning-Star is of the Rifing of the Sun; and fometimes contingent, or probable, as Prudence and Industry are the probable Signs of a Man's thriving in the World.

Q Are not Words call'd Signs?

A. Yes,

A. Yes, and they may be reckon'd the chief Kind of all, as they are the most universal Signs of our Thoughts or Ideas. But though all Words and Names are Signs invented by the Mind, and fignify Things from the mere Appointment and Agreement of Men, and are therefore mental Relations; yet those are more eminently fo which are called external Denominations, that is, Names given to Things, upon Account of some Idea which the Mind affixes to them, rather than for any Thing that really belongs to them; as if we fay, fuch a Building stands on the right or the lest Side of the Road, these are mere outward Denominations, which depend on turning one's Face this Way or that .- Of this Kind are technical Words, or Terms of Art, which are used to fignify the Manner of our Conception of Things; as if I fay, a Haruk

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h Hawk is a Species of Birds, the Word Species is a Logical Term of Art, and may be call'd a mental Relation.

N. B. Besides these already mention'd, there are various symbolical Signs and Representations of Things, invented and used by Artists; as the Characters of Algebra, Music, &c.

CHAP. XVI.

Of the chief Kinds of BEING.

Q. INTO how many Kinds is Being usually diffinguish'd?

A. Into Substances or Modes; finite, or infinite; and natural, artificial, or moral.

Q. What Sorts of Beings are call'd

Substances, and what are Modes?

A. Every Being that may be confider'd as subsisting of itself, is call'd Substance; as an Angel, a Man, a Horse, a Tree, a Stone, an Apple: But when we consider it as subsisting by means of some other Being, to which

which it belongs, it is then call'd a Mode; as Length, Colour, Shape, Wisdom, Roughness, Smoothness, &c.

Q. Can Modes be properly call'd

Beings ?

A. When we give them that Name, we only mean that they have a real Existence in Nature; though this indeed is denied by some Philosophers, who from thence are called Nominalists, as those who maintain the contrary Opinion are call'd Realists. It must be granted, however, that Being does not belong to Modes in so substances.

Q. How many Kinds of Subfiances

are there?

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A. Only two that we know of, viz. Material and Intelligent; that is, either Bodies or Spirits: But the Sub-stance of Spirits is of so fine and subtle a Texture, as not to be the Object of our Senses.

Q. How

Q. How many Kinds of Modes are

A. They are distributed into various Kinds, the chief whereof have been enumerated and explain'd in Logic, (Part 1. Chap. 2.) to which we refer the Reader.

CHAP. XVII.

Of FINITE and INFINITE Beings.

Q WHAT is meant by the next Distinction of Beings into finite and infinite?

A. Finite Beings are those which are limited or bounded, either with respect to their Natures, Parts, Quantity, Qualities, Powers or Duration: But those are infinite which are unlimited, or have no Bounds.

Q. Are all Substances either finite or infinite?

A. Yes,

A. Yes, either in respect of their Quantity or of their Powers. Created Spirits are faid to be finite, as well as Bodies; not as to Quantity, for we have no Idea of their Dimensions; but as to their Qualities, their Knowledge, their Goodness, and all their Operations. They are allowed, however, to have an unlimited Duration with regard to the Future, though not with regard to the Past; that is, they may have no End, though they had a Beginning: And this Duration is usually call'd Immortality .- We commonly call Space infinite, which some Philosophers will not allow, making it a mere Nibility, or the Limit of Existence, as Existence may be said to limit Nihility.

Q. Are all Modes either finite or

infinite?

A. No, fome cannot be call'd either; for tho' we can fay finite or infinite Knowledge, Patience, Length,

Breadth,

Breadth, &c. yet we cannot say a finite or infinite Colour, Roughness, &c.

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Q. How is God faid to be infinite?

A. With respect to his Essence, his Duration, or his Attributes. The Infinity of his Essence is his Immensity or Omnipresence: The Infinity of his Duration is his Eternity, without Beginning and without End: The Infinity of his Attributes implies that his Knowledge, Power, Holiness, Goodness, &c. are infinite, that is, every way persent in the most absolute Sense.

N B. There is no Medium between Finite and Infinite; for what we call Indefinite is only that of which we know not the Limits.

CHAP. XVIII.

Of NATURAL, ARTIFICIAL, and MORAL Beings.

Q. IN the last place you distinguished Beings into natural, moral, and

artificial; what is the Meaning of those Words.

A. Natural Beings are those which have a real and proper Existence, and are consider'd as formed and appointed by God the Creator; as Spirits, Bodies, Men, Beasts, Birds, Fire, Air, Water, Light, Sense, Reason, &c. For though some of these are produced by others, as Animals produce their own Species, yet God is properly the Author of them all, either immediately, or by the Laws of Nature he has ordained.

Q. Which are artificial Beings?

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A. Those which are made by the Skill, Contrivance, and Operations of Men; as Houses, Pictures, Garments, Paper, Propositions, Arguments, Sciences, Books, &c.

Q. Which do you call moral Be-

A. Thofe

[264]

A. Those which relate to the Manners, Conduct, and Government of intelligent Creatures, endued with Freedom of Will, and under Obligations to particular Actions of Duty. Thus Law, Virtue, Vice, Sin, Righteousness, Justice, Injustice, Reward, Punishment, &c. are call'd moral Beings; but under this Confideration they are only modal. -In this Manner new Names might be given to different Beings, by calling them political, mathematical, theological, medicinal, &c. as they are treated of in the feveral Sciences: But thefe had better be call'd different Ideas than Beings; as Rebellion, Allegiance, Treafon, &c. are political Ideas; Length, Breadth, &c. are mathematical; and Holiness, Repentance, Salvation, &c. are theological.

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